UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

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UNITED STATES,

v. Crim. No. 12-298 (ES)

FARAD ROLAND,

Defendant.

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DEFENDANT'S PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

Defendant Farad Roland (hereinafter, "Mr. Roland"), by and through counsel, submit these proposed findings of fact and conclusions of law in support of Defendant's motion for a pretrial ruling that he is intellectually disabled and therefore ineligible for the death penalty. See 18 U.S.C. § 3596(c) ("A sentence of death shall not be carried out upon a person who is mentally retarded…."); see also Atkins v. Virginia, 536 U.S. 304 (2002); Hall v. Florida, 134 S.Ct. 1986 (2014); Moore v. Texas, 137 S.Ct. 1039 (2017).

I. Procedural Background

1. On June 5, 2013, Mr. Roland was charged in a Second Superseding Indictment, alleging, inter alia, six counts of Murder in Aid of Racketeering in violation of 18 U.S.C. §§ 1959(a)(1), 2, five of which have been authorized by the Attorney General for a sentence of death.

2. If convicted on any one of the five death-authorized counts of Murder in Aid of Racketeering, the maximum sentence Mr. Roland would face is a sentence of death. See 18 U.S.C. § 1959(a)(1).

3. On November 11 and 12, 2016, Mr. Roland was examined by Dr. Scott J. Hunter.

4. On December 5, 2016, the defense provided notice that it intended to raise a claim of intellectual disability. See Doc. No. 274.

5. On January 6, 2017, the parties simultaneously exchanged the names of experts that either party intended to call in their case-in-chief at an Atkins hearing, as well as the curriculum vitae of their experts, and a list of tests that either party intended to administer to the defendant.

6. On January 12, 2017, Dr. Stephen Greenspan met with Mr. Roland.

7. On January 30, 2017, and February 7, 2017, the defense filed its objections regarding the Government's proposed tests, scope of the interview of Mr. Roland, and procedures to be followed during testing. See Doc. Nos. 278, 280.

8. On February 10, 2017, the Government filed its response to Defendant's objections. See Doc. No. 282.

9. On February 22, 2017, the defense submitted Affidavits by Dr. Scott J. Hunter and Dr. Stephen Greenspan in further opposition to certain of the Government's proposed tests of the defendant. See Doc. Nos. 290, 291; see Def. Ex. 43 and 51.

10. On February 27, 2017, this Court issued an order overruling in part and granting in part the defendant's objections to the Government's proposed testing of the defendant. See Doc. No. 296.

11. On March 1, 2017, Mr. Roland was examined by Dr. George W. Woods.

12. On March 9 and 10, 2017, Mr. Roland was examined by Dr. Joel E. Morgan.

13. On March 28, 2017, the United States Supreme Court issued its opinion in Moore v. Texas, supra, 137 S.Ct. 1039 (2017).

14. On April 28, 2017, the parties simultaneously exchanged the expert reports of Drs. Hunter, Greenspan, and Morgan. See Def. Ex. 40 and 45; also see Gov. Ex. 167.

15. On May 1, 2017, the Government filed a Motion to Exclude Testimony Regarding the "Common Sense Questionnaire" from the Atkins Hearing, or, in the alternative, for a Daubert Hearing (Doc. No. 328).

16. On May 10, 2017, the defense responded to the Government's Daubert motion (Doc. No. 337). Also see Dr. Greenspan Daubert Declaration, 5/10/17, Def. Ex. 49.

17. On May 22, 2017, the Government submitted an expert rebuttal report written jointly by Drs. Morgan and Marcopulos, as well as an addendum report thereto. See Def. Ex. 66.

18. On May 22, 2017, the defense submitted expert rebuttal reports by Drs. Scott Hunter, Stephen Greenspan, John Olley, Erin Bigler, and George Woods. See Def. Ex. 41, 46, 53, 55, and 59.

19. On May 23, 2017, the defense submitted an additional expert rebuttal report by Dr. Kevin McGrew. See Def. Ex. 57.

20. On May 26, 2017, the defense submitted a Motion for Pretrial Determination that the Death Penalty is Barred under the Eighth Amendment to the United States Constitution because Mr. Rolland is intellectually disabled. See Atkins v. Virginia, supra, 536 U.S. 304 (2002); Hall v. Florida, supra, 134 S.Ct. 1986 (2014); Moore v. Texas, supra, 137 S.Ct. 1039 (2017); see also 18 U.S.C. 3596(c).

21. On May 26, 2017, the defense also submitted a Daubert/Rule 702 motion challenging the methodology employed by Drs. Morgan and Marcopulos. See Motion, dated, May 26, 2017, to Exclude Testimony of Dr. Joel E. Morgan and Dr. Bernice A. Marcopulos, or, in the alternative, Request for Daubert Hearing. See Doc. No. 356; see also Daubert v. Merrell

Dow Pharmaceuticals, 509 U.S. 579 (1993), Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999); Fed.R.Evid. 702.

22. On May 31, 2017, the Government filed expert sur-rebuttal reports by Drs. Kyle B. Boone and Robert L. Denney. See Def. Ex. 68 and 69.

23. On May 31, 2017, the Government responded to the defendant's Daubert/Rule 702 motion. See Doc. No. 358.

24. On May 31, 2017, the Government also responded to the defendant's Atkins motion. See Doc. No. 360.

25. Additional letter-briefs and letter-response briefs were submitted prior to and throughout the Atkins/Hall/Moore hearing regarding evidentiary issues relevant to said hearing.

26. On June 5, 2017, oral argument was had on the parties' respective Daubert motions and preliminary matters related to Mr. Roland's Atkins/Hall/Moore hearing. See Minute Entry, dated, June 5, 2017 (Doc. No. 368).

27. Beginning on June 6, 2017, and lasting until June 29, 2017, a hearing was held to determine whether Mr. Roland is intellectually disabled and therefore ineligible for the death penalty. See Minute Entries, dated, June 6, 7, 8, 9, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 26, 27, 29, 2017 (Doc. Nos. 369, 371, 374, 378, 380, 388, 389, 390, 392, 394, 395, 397, 398, 400, 403, 405, 407).

28. On June 27, 2017, this Court issued an order directing the parties to simultaneously submit proposed findings of fact and conclusions of law, and thereafter submit simultaneous responses, on July 20, 2017, and August 3, 2017, respectively. See Letter Order, dated, June 27, 2017 (Doc. No. 404).

29. On June 29, 2017, this Court issued an order directing the parties to submit a joint exhibit list by no later than July 20, 2017. See Letter Order, dated, June 29, 2017 (Doc. No. 406).

II. Factual Findings

A. Introduction: The Clinical Standard

30. The prevailing clinical standards relating to intellectual disability are outlined in the most recent edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (presently the fifth edition, published in 2013, hereinafter referred to as, "DSM-5"), the most recent edition of the American Association on Intellectual and Developmental Disabilities Manual (presently the eleventh edition, 2010, hereinafter referred to as, "AAIDD-11"), and the most recent edition of the American Association on Intellectual and Developmental Disabilities User's Guide (presently the 2012 edition, hereinafter referred to as, "AAIDD User's Guide"). See Dr. Hunter direct, 6/6/17 Tr. 58 ("The guidelines that I am going to follow are both the DSM-5 and the AAIDD… The American Association of Intellectual and Developmental Disabilities, who has, that group has actually done the most work over the last 40 years to help us understand the need for utilizing adaptive functioning deficits.").

31. The DSM-5 and the AAIDD definitions of intellectual disability are very similar. See Dr. Greenspan direct, 6/12/17, Tr. 22; see also. Dr. Morgan cross, 6/16/17 Tr. 144 ("Q: Do you agree the national authoritative sources on the intellectual disability are DSM and AAIDD? A: "They are very much alike, actually, as was testified to by Dr. Greenspan. That's correct. They are very much alike."); see also Def. Ex. 39c, Tassé, M. (2015). ID Definition & Diagnostic Criteria, in E. Polloway (Ed.), The Death Penalty and Intellectual Disability. Washington, DC: AAIDD, p. 14-15 (hereinafter The Death Penalty and Intellectual Disability)

(noting "[t]he DSM-5 and AAIDD are in agreement on many aspects of their respective definitions and diagnostic criteria for ID" and describing the many similarities).

32. The DSM-5, AAIDD-11 and AAIDD User's Guides, do not provide either/or definitions. There is "overlapping membership between the committee that wrote AAIDD and the committee that wrote the section on ID in DSM-5, and as a result, because the AAIDD manual was upgraded more frequently." See Dr. Greenspan direct, 6/12/17 Tr. 14.

33. The DSM-5 and the AAIDD are the two sources of authority relied upon by the Supreme Court in determining the medical standard. See Moore, Hall, Atkins, discussed, infra, Conclusions of Law. "The AAIDD and DSM-5 systems provide the most rigorous and complete description of how to operationally and clinically define and implement [the] criteria [for intellectual disability. AAIDD-11] and its companion User's Guide are the most comprehensive and thorough." Tassé, supra, ID Definition & Diagnostic Criteria, at 17-18.

34. The DSM-5 only has a few pages devoted to the discussion of intellectual disability and is a much "briefer and more of a conceptual framework." Dr. Greenspan direct, 6/12/17 Tr. 14. The AAIDD, in contrast, has two books devoted to the definitional frameworks for intellectual disability. See Dr. Greenspan direct, 6/12/17, Tr. 13; Dr. Greenspan cross, 6/13/17, Tr. 132-133; Dr. Greenspan re-cross, 6/14/17, Tr. 118 (noting that the DSM-5 doesn't go into the level of detail that the AAIDD does); Dr. Morgan cross, 6/16/17 Tr. 168-169 (acknowledging that the DSM is much more limited than the AAIDD in describing the clinical standards).

35. "Intellectual disability (intellectual developmental disorder [formerly mental retardation]) is a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains."

DSM-5, Def. Ex. 22c at 33; see also AAIDD User's Guide, Def. Ex. 39b at 1 ("Intellectual disability (ID) is characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18.").

36. According to the DSM-5, the following three criteria must be met in order to determine that an individual is intellectually disabled:

> A. Deficits in intellectual functions, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing.
>
> B. Deficits in adaptive functioning that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities of daily life, such as communication, social participation, and independent living, across multiple environments, such as home, school, work, and community.
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> C. Onset of intellectual and adaptive deficits during the developmental period.

See DSM-5, Def. Ex. 22c at 33.

B. Risk Factors for Intellectual Disability

37. "History is invaluable in making a diagnosis." See Dr. Bigler report, Def. Ex. 55 at 3.

38. The AAIDD states that for intellectual disability, "etiology is conceptualized as a multifactorial construct composed of four categories of risk factors (biomedical, social, behavioral, and educational) that interact across time, including across the life of the individual and across generations from parent to child." See AAIDD Intellectual Disability: Definition,

Classification, and Systems of Supports (11th edition), Def. Ex. 39a at 58-59 (hereinafter AAIDD-11). See, generally, Def. Ex. 39a, Chapter 6. See, also, AAIDD User's Guide, Def. Ex. 39b at 3-4.

39. The DSM also lists certain risk factors for intellectual disability, including prenatal "environmental influences (e.g., alcohol, other drugs, toxins, teratogens)" and postnatal "severe and chronic social deprivation." See Def. Ex. 22c at 39, section entitled "Risk and Prognostic Factors."

40. "[A]lthough etiology is not a required area of documentation for diagnosing MR, Mr. Roland's neurodevelopmental history is significant for many contributing factors to his presentation of mild ID, across childhood, adolescence and into adulthood. He was likely exposed in utero to polysubstances, including alcohol at excessive levels. He was born to a mother with substantial psychopathology and substance abuse, who was unable to provide either an effective level of care or attachment. He was severely neglected, across all environments where raised, and was the victim of abuse within these settings." See Dr. Hunter Report, Def. Ex. 40 at 17-18. He also experienced an "extreme level of poverty he lived in throughout his childhood and adolescence, the record of likely malnutrition he experienced, and the substandard educational instruction and support he was provided. The intersection of these traumatic and significantly abusive experiences are understood to impact neuropsychological and behavioral development substantially, and contribute as well to ongoing vulnerabilities to increased impact of additional stressors, like violence and aggression, overtime." See id. at 7.

41. "[I]ntellectual disability is a brain disorder fundamentally. And so what are the things that could potentially influence the brain. Well, as I listed here, there are multiple factors. Even epigenetic factors prior to the point of conception that may affect brain development. Then

you have pregnancy, as I listed there, well baby care. You have got all of the medical history, what was the environment enrichment, lack of enrichment. Deprivation. What was nutrition like. Et cetera. All of these things are all factors you can take into consideration. You look at school. You look at medical history. You look at factors that tell you, was this individual at disadvantage or not. And it sets up an expectation of what you are going to find." See Dr. Bigler direct, 6/23/17, Tr. 65 -66.

42. "In the case of Farad Roland there are additional risk factors (inadequate nutrition during infancy, extreme neglect and lack of stimulation) which all contribute to the possibility of developing ID." See Dr. Greenspan Report, Def. Ex. 45 at 26-27. "Neurodevelopmental risk factors … includ[e] daily exposure to alcohol from his mother's drinking throughout pregnancy." See Dr. Greenspan Report, Def. Ex. 45 at 27.

43. Dr. Greenspan discussed risk factors and the etiology of intellectual disability, and identified multiple risk factors for intellectual disability from Mr. Roland's life history records and the testimony of lay witnesses. See, generally, Greenspan direct, 6/12/17, Tr. 77 - 100.

44. Poverty, parental drug use, parental alcohol use, parental smoking, parental immaturity, and lack of preparation for parenthood are among the prenatal risk factors for intellectual disability. See AAIDD-11, Def. Ex. 39a at 60, Table 6.1.

45. Lack of access to prenatal care, parental rejection of caretaking, parental abandonment of child, lack of medical referral for intervention services at discharge are among the perinatal risk factors for intellectual disability. See AAIDD-11, Def. Ex. 39a at 60, Table 6.1.

46. Malnutrition, impaired child-caregiver interaction, lack of adequate stimulation, family poverty, child abuse and neglect, domestic violence, social deprivation, impaired

parenting, inadequate early intervention services, inadequate special education services, and inadequate family support are among postnatal risk factors for intellectual disability. See AAIDD-11, Def. Ex. 39a at 60, Table 6.1.

47. Evidence of the risk factors listed above are present in Mr. Roland's life history.

1. Neglect

48. Mr. Roland was born on 8/18/1984 to Elvena Roland. See Def. Ex. 2e. Mr. Roland's natural father, Lawrence James, spent much of Mr. Roland's life incarcerated. See Letter from NJ Department of Corrections, Def. Ex. 6b at 3-4. Also see, generally, Lawrence James Rap Sheet, Def. Ex. 6c at 14-24. Mr. James died of AIDS while incarcerated on 5/21/1996. Mr. Roland was 11 years old at the time. See Def. Ex. 2h. Ms. Roland also died of AIDS on 05/31/1995. Mr. Roland was 10 years old at the time. See Def. Ex. 2c. A DYFS caseworker reported on 4/22/1985 that Amin Roland's teacher had visited the Roland home to talk to Ms. Roland, but "Ms. Roland was sleeping and the children were unsupervised." The caseworker visited the Roland home on 4/23/1985 and found that Ms. Roland "was sleeping but children let worker in. Mother said she was unaware that anyone came to her home yesterday. Mother said she sleeps a lot in the day." See Def. Ex. 4b at 000170.

49. A DYFS referral report from 2/26/1985 states that the Roland children were referred to DYFS because "children are left alone on a regular basis, are not dressed properly, not fed properly, and oldest child does not attend school. Ref't states mo is on drugs." See Def. Ex. 4a at 000020.

50. A DYFS referral report from 9/09/1985 states that the Roland children were referred to DYFS because "Natural mother left children unsupervised last week. Children are presently alone in the apartment." See Def. Ex. 4a at 000023.

51. A DYFS contact sheet from the same day, 9/09/1985, reports that caseworkers visited the Roland home in response to the referral. Ms. Roland's aunt, Mable Johnson, was there. "Ms. Johnson said she agreed to watch the Roland children for a few hours on Friday but Ms. Roland never returned. Ms. Johnson said she didn't mind watching the children for a while but not for days. She said her niece does this all the time, that she asks her relatives to watch her children for a while and never returns. The apartment was a total disaster. Clothes were piled up in Elvena's bedroom from the floor halfway to the ceiling… Carole Lowe, Elvena's sister's mother-in-law said she suspected that Elvena was on drugs cause she sleeps a lot and @ times her behavior is strange. Ms. Lowe took workers to the kitchen to show workers mother's refrigerator. When Ms. Lowe opened the refrigerator a foul odor came out and workers saw mold build up inside the refrigerator. The kitchen was also a mess. Ms. Lowe said a few weeks ago there was a fire in Ms. Roland's apartment which was caused by Sharita"—Mr. Roland's sister—"who was playing around with the stove. Ms. Lowe said Ms. Roland is an unfit mother and this episode is indicative of Ms. Roland's attitude towards her environment and children... Worker asked Amin and Larry"—Mr. Roland's older brothers—"if their mother ever left them by themselves. Children said yes." See Def. Ex. 4b 000165-000164.

52. A DYFS referral report from 10/03/1985 states that the Roland children were referred to DYFS because they "are left by themselves. There is no electricity nor food." See Def. Ex. 4a at 000024.

53. DYFS contact sheets from 10/08/1985 indicate that a caseworker visited the Roland home, and the children were by themselves. The children reported that they had been left with their uncle, Mr. Wakefield, who had left a couple of hours ago. The house was a mess.

When Ms. Thomas, Mr. Roland's aunt, came downstairs, she said "she had no idea" where her sister, Mr. Roland's mother, was. See Def. Ex. 4b at 000162-000161.

54. DYFS records indicate that on 10/08/1985 the Roland children were placed with their maternal aunt, Ms. Lethia Thomas. See Def. Ex. 4b at 000156.

55. A DYFS referral report from 10/18/1985 states DYFS was informed that the Roland children "are alone right now" 10/18/1985. DYFS determined that "Children were home with their uncle, Floyd Wakefield. He said he had no idea where Mrs. Roland was but that he would stay with the children." The caseworker asked Ms. Thomas if the children could stay with her, and she agreed. See Def. Ex. 4a at 000026-000027.

56. Previously on 9/9/1985, a DYFS worker had encountered Mr. Wakefield "questioned mentally Mr. Wakefield's ability to care for the children. He looked like he had a few problems himself. He looked like he was into alcohol heavily." See Def. Ex. 4b at 000164.

57. A DYFS contact sheet from 10/21/1985 indicates that a caseworker asked Ms. Thomas, "if worker could take all the children to the doctor today. She said it was alright but she could not assist worker… She said Farad did not have any clothes and could not go." See Def. Ex. 4b at 000159.

58. Jeanette Carter testified that in 1985 or 1986, she took Sarita Roland (Mr. Roland's sister) and one of her own daughters to the Bronx Zoo. When returning, she came to Ms. Roland's house and "she was in the kitchen with about three other people. They were all passed out. Farad was in a play pen. And he had feces all over his face and forehead." Ms. Carter observed "A belt, a syringe. Burned spoon, liquid alcohol." See Carter direct, 6/9/17, Tr. 100.

59. Ms. Carter testified that at about the time Mr. Roland was three years old, she would often pick him up from his house and take care of him "Because when he was at his

mother's house, she is a drug addict, a lot of times he wouldn't eat, you know, or he would have like on, you know, soggy Pampers. So you know, I would give, I would give him as much as I could, and bring him over." See Carter direct, 6/9/17, Tr. 107.

60. DYFS contact sheets from 05/03/1991 an 05/21/1991 report that "This worker's overall perception of this Aunt is that she has no commitment to these children. She is very quick to give away all responsibility for them and often doesn't know where they are." Ms. Thomas "refused to participate in parenting techniques and displayed no real commitment." See Def. Ex. 4b at 000187 and 000185-000186.

61. On 06/03/1991 a DYFS caseworker visited Ms. Thomas's home, where Farad, Amin, and Larry Roland were living. "This worker noticed several people in the doorway. They scattered when worker drove up." The worker spoke to Winston Thomas, the children's uncle and Ms. Thomas's wife, at the doorway. "While worker was talking another male entered the apartment who was identified as a friend." The caseworker wrote that she "doesn't know if the traffic at this apartment is drug related but there is clearly limited supervision and the children appear to be treated as an after-thought." See Def. Ex. 4b at 000185-000184.

62. A month earlier, on 5/03/1991 the DYFS caseworker also noted as she entered Ms. Thomas's home "a middle aged man was leaving. Worker felt that Aunt was acting very nervous over the presence of this man in her home. She identified him as a friend but worker was left feeling uncomfortable about encounter." See Def. Ex. 4b at 000186.

2. Abuse

63. On 5/28/97, DYFS received a referral from a social worker at Beth Israel hospital stating that Mr. Roland had "3 scratch marks on the left side of his face, a mark under his left eye, and a deep scratch mark in the center of his throat caused by his aunt hitting him. Fard was

also beaten by his uncle and has marks on his legs from the beating. Reft states that her major concern is that Fard's aunt hit him in the head with a stick and she is concerned that if things get out of hand that Fard may be seriously hurt." See Def. Ex. 4b at 000064.

64. Ms. Thomas had given Mr. Roland money "to go purchase cigarettes for his aunt. He put the money in his jean pocket and forgot the pocket had a hole in them. He lost the money his aunt became angry and hit Fard with her hands." See Def. Ex. 4b at 000060.

65. On 6/23/2001, Mr. Roland was admitted to Newark Beth Israel Medical Center for a scalp laceration after being struck in the head with a stick by his uncle, Winston Thomas. His medical record reports that "Pt states he was struck in the head a wooden stick & smashed his head on the wall" and "Pt states his uncle struck a stick on lt side of head." Nursing Assessment Progress Notes indicate that the South District was called and the "officer states pts. uncle, Winston Thomas, is under arrest." The wound was closed with staples. See Def. Ex. 12d at 1-3 and 6.

66. Habeeb Robinson also related to Dr. Greenspan that "Farad's caretaker, Winston Thomas, his uncle, was very abusive to him. He beat Farad often, and so loud, that the beatings, and Farad's screaming, could be heard from the street. Other children thought it was funny, and told Winston that Farad did things he didn't do (like stealing a bicycle) just so they could hear the beatings." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 21.

3. Malnutrition

67. On 3/15/1985 DYFS made an emergency food referral for Elvena Roland because "family ran ourt of food and will not receive food stamps until the 1st of the month. See Def. Ex. 4b at 140.

68. On 9/11/1985 Ms. Roland told a DYFS caseworker that her "food stamps had been stolen and she needed food. Worker told mother that worker would send someone out tomorrow to take her to a pantry." See Def. Ex. 4b at 000163.

69. On 08/16/1985 a caseworker went to visit the Roland home. The refrigerator was not working. Ms. Roland "said she needed food in her house cause she's been buying food on a daily basis and had run out of food stamps. Mother had no canned goods in her cabinet. Mother said she could probably take her children to a relatives house over the week-end where they would be fed." See Def. Ex. 4b at 000166.

70. On 8/19/1985 DYFS made an emergency food referral for Elvena Roland because "the refrigerator broke last Tuesday and all the food spoiled. Also food has been purchased daily depleting her food stamps." See Def. Ex. 4b at 000144.

71. Jeanette Carter testified that Mr. Roland came to her parents house to share meals with the family, and that she noticed he was "always hungry" and she would sometimes see him eating "in the dark." See Carter direct, 6/9/2017, Tr. 111-113.

72. On one occasion, when Mr. Roland was 6 or 7, Ms. Carter remembered finding Farad trying to eat dog food with a spoon, and she stopped him. The can had a picture of a dog on it. See Carter direct, 6/9/2017, Tr. 112-113.

73. Ms. Carter also testified that Mr. Roland would occasionally attend Ms. Carter's mother's Sunday meals, and "he used to ask was it a holiday… Just wanted to know if it was Thanksgiving or Christmas. Because there was so much food." See Carter direct, 6/9/2017, Tr. 114-115.

74. Amin Roland, Mr. Roland's brother, informed Dr. Greenspan that he and his brothers were fed inferior food by Ms. Thomas while in her custody as compared to their cousins. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 7.

4. Mother's physical and psychological health and substance abuse problems

75. On 10/2/1984, Ms. Roland was admitted to Newark Beth Israel Medical Center. She was given a final diagnosis of hepatitis from a postpartum blood transfusion and "History of drug abuse and alcohol abuse." She was noted to be "jaundiced." See Def. Ex. 5a at 1253-1255.

76. Ms. Roland's medical history from the 10/2/1984 admission reports "She takes drugs which is Doriden on occasion. She is a regular alcohol consumer of one to two beers per day and on occasion more… One uncle who lives in the house with her does use heroin. She is unemployed and smokes up to one pack a day." See Def. Ex. 5a at 1256.

77. Mr. Roland was less than two months old at the time.

78. Jeanette Carter observed Elvena Roland's drinking and drug habits, testifying that Ms. Roland would start drinking "as soon as the liquor store opened up" and that she drank "malt liquor, like Old English and Colt 45." She used to "smoke the pipe. And she used to sniff dope, or coke." Ms. Carter also testified that she saw syringes at Ms. Roland's apartment but never actually saw Ms. Roland inject. See Carter direct, 6/9/17, Tr. 99-100.

79. Ms. Carter testified that she observed Ms. Roland drinking while pregnant with Farad. Ms. Carter visited Ms. Thomas "a lot" "throughout the day" and "whenever she"—Ms. Roland—"had money to get something, she drank." See Def. Ex. 5a at 103.

80. In December of 1984, Ms. Roland was hospitalized at Newark Beth Israel Medical Center "but she did not follow through with after-care programs." This hospitalization is

referred to in the patient history from a later hospitalization. Records for the December 1984 hospitalization are otherwise unavailable. See Def. Ex. 5a at 1227.

81. On 4/30/1985, Ms. Roland was admitted to Newark Beth Israel Medical Center with a provisional diagnosis of major depression. See Def. Ex. 5a at 752.

82. Ms. Roland was discharged on 5/7/1985 after a one-week stay. Her discharge record gave her diagnoses of isolated explosive disorder, dysthymic disorder, mixed substance abuse, and chronic hepatitis. See Def. Ex. 5a at 753-754.

83. Ms. Roland "admitted feeling extremely depressed recently. Just prior to admission, the patient had become very frustrated and threatened to stab her uncle's wife. The patient's cousin apprehended her in her attempts to do so. The patient claimed that she had financial stress and her family members were interlopers. Therefore, she lost her control. The patient also has lost approximately 15 pounds in the past 3 months. She admits to abusing Doriden and cocaine whenever she has the money." See Def. Ex. 5a at 754.

84. On 10/19/1985, Ms. Roland was admitted to Newark Beth Israel Medical Center with a diagnosis of major depression. See Def. Ex. 5a at 766.

85. On 10/22/1985, Ms. Roland was discharged with a final diagnosis of "Dysthymic disorder and unspecified personality disorder." Her patient history stated Ms. Roland "felt depressed and fearful that she might explode. She left home for days prior to admission to live with her girlfriend and then came to the Emergency Room complaining of feeling helpless and hopeless." See Def. Ex. 5a at 768.

86. On 05/18/1986, Ms. Roland was admitted to Newark Beth Israel Medical Center with a diagnosis of recurrent major depression. See Def. Ex. 5a at 777.

87. On 05/22/1986, Ms. Roland was discharged with a final diagnosis of "Adjustment disorder with depressed mood, mixed substance abuse continuous." Her patient history stated that "This is the 3rd NBIMC psychiatric admission in the past one year… The patient was last admitted to the unit in October of 1985 but never sought follow-up care for her depression. The patient used Doriden, codeine, cocaine and alcohol over the past 6 months." Later in the same record Ms. Roland reports that she started to inject cocaine about 18 months ago about two to three times a week. See Def. Ex. 5a at 779 and 784.

5. Inadequate special education services

88. At the time Mr. Roland was receiving education from Newark Public Schools, special education services were deficient and not sensitive to intellectual disability specifically. See, generally, testimony of Andy D'Amato, 6/9/17. See, generally, testimony of Delores Lemon-Gresham, 6/8/17 and 6/9/17. See also Newark School District Comprehensive Compliance Investigation Report, Volume 1, Def. Ex. 3 at internal page 394-395.

6. Risk Factor Conclusions

89. All of the above are risk factors for intellectual disability present in Mr. Roland's life and are consistent with his clinical presentation. Rather than rule out intellectual disability, they are both contributing and exacerbating factors for intellectual disability. See generally, Dr. Hunter direct, Dr. Greenspan direct, Dr. Bigler direct.

C. Criterion 1: Deficits in Intellectual Functioning

90. Mr. Roland has deficits in intellectual functions, such as reasoning, problem-solving, planning, abstract thinking, judgment, academic learning and learning from experience, and practical understanding confirmed by both clinical assessment and individualized,

standardized intelligence testing. See DSM-5, Def. Ex. 22c, at 33; see generally, conclusions of Dr. Hunter, Dr. Greenspan, Dr. McGrew, and Dr. Bigler.

91. Mr. Roland has significant limitations in intellectual functioning. See AAIDD-11, Def. Ex. 39a at 5; see generally, conclusions of Dr. Hunter, Dr. Greenspan, Dr. McGrew, and Dr. Bigler. "Intellectual functioning" is currently best conceptualized and captured by a general factor of intelligence. Intelligence is a general mental ability. It includes reasoning, planning, solving problems, thinking abstractly, comprehending complex ideas, learning quickly, and learning from experience." See AAIDD-11, Def. Ex. 39a at 31.

92. "Significant limitations in intellectual functioning" criterion is reflected by an IQ score that is approximately two standard deviations below the mean for the particular test, considering the standard error of measurement, see AAIDD-11, Def. Ex. 39a at 31, and informs the "best practice" that IQ scores be reported with an "associated confidence interval." Id. at 36.

93. Mr. Roland's deficits in intellectual functioning are evidenced by Dr. Hunter's IQ testing, conducted in November 2016, which resulted in an IQ score of 71, and when corrected for the Flynn effect, a 68. At a 95% confidence interval, these scores have bands of 68-76 and 63-73. See Dr. Hunter report 4/28/17, Def. Ex. 40 at 12. See also Dr. McGrew Report 5/23/17, Def. Ex. 57 at 6.

94. Mr. Roland's deficits in intellectual functioning are evidenced by neuropsychological testing conducted by Dr. Hunter in November 2016.

95. Neuropsychological testing administered by Dr. Hunter revealed that Mr. Roland has impairments "in the principal executive functioning skills that underlie complex adult level adaptive and reasoning abilities. Across measures most consistent with the demands of independent capability, significant challenges are noted, including with encoding, consolidating,

and retrieving complex verbal and visual information; taking in and quickly processing verbal and visual information as it is presented, and integrating that information for use in the immediate term; struggles with sustained attention to information as complexity and length increase, and demands for the sequential analysis and understanding of that information increase; and with strategic thinking and flexible problem solving." Dr. Hunter Report, 4/28/17, Def. Ex. 40 at 16; Dr. Hunter direct, 6/6/17 Tr. 141-156.

96. Neuropsychological testing helps explain how difficulties "manifest for this individual with regard to academic skill development, with regard to abstract thinking, problem solving, strategy development, flexibility, short term and long term memory, [a]nd how they are able to actually make sense of expectations in the world, and then make [decisions] about how to handle the demand." Dr. Hunter direct, 6/6/17 Tr. 65-66.

97. Neuropsychological testing can help document both deficits in intellectual functioning and adaptive functioning. Dr. Hunter direct, 6/6/17, Tr. 65-66; 199; see discussion Criterion 2, infra.

98. Mr. Roland's deficits in intellectual functioning are evidenced by Dr. Morgan's IQ testing, conducted in March 2017, which resulted in an IQ score of 75. See Dr. Hunter Report, 4/28/17, Def. Ex. 40 at 16; Dr. Morgan Raw Data, Gov. Ex. 166; Dr. McGrew Report, 5/23/17 at 12, 41.

99. The IQ score from March 2017 should be corrected using the Flynn Effect to a 72. See Dr. Hunter report, 4/28/17, Def. Ex. 40 at 16-17; Dr. McGrew Report, 5/23/17, Def. Ex. 57 at 6 (Table 1); Dr. McGrew direct, 6/26/17 Tr. 81; AAIDD-11, Def. Ex. 39a at 37.

100. Mr. Roland's deficits in intellectual functioning are further evidenced by neuropsychological testing conducted by Dr. Morgan in March 2017. See Dr. Hunter 4/28/17

Report at 16-17 ("Associated findings across neuropsychological measures were strongly consistent between the two testings, as well, highlighting substantial deficits with executive functioning, memory, and information processing speed, and these scores are congruent with expectations for broader neuropsychological dysfunction in persons with ID, as described in the DSM-5 Prong One criteria. Across the measures administered, obtained scores meet the DSM-5 and AAIDD criteria for determining intellectual disability under Prong One criteria." See also Hunter Rebuttal Report, 5/22/17 at 7-9; Dr. Bigler direct, 6/23/17 Tr. 79; Defense Demonstrative Exhibit 1, Dr. Bigler Powerpoint, pp. 35-36; Dr. Morgan's Raw Data, Gov. Ex. 166; Dr. Hunter's Raw Data, Gov. Ex. 170.

101. Neuropsychological testing administered by Dr. Morgan revealed similar deficits to Dr. Hunter's testing. Dr. Hunter direct 6/6/17 Tr. 206-207; Dr. Bigler direct, 6/23/17 Tr. 139-140, 151; Defense Demonstrative Exhibit 1, Dr. Bigler PowerPoint, pp. 22; Dr. Bigler Report, 5/22/17, Def. Ex. 55 at 8 ("The fact that neuropsychological testing by both Drs. Hunter and Morgan point to cognitive impairments, further supports the notion that intellectual impairments are more likely than not to be present in Mr. Roland.").

102. Mr. Roland's deficits in intellectual functioning are evidenced by the KBIT given by Dr. Farber in 2002, when he was 17 years old, which resulted in a score of 70. See Def. Ex. 9a at 55, 58; see also discussion, infra, Criterion 3.

103. Mr. Roland's 2002 KBIT score serves as "an indication of potential impairments in general intellectual functioning consistent with a diagnosis of intellectual disability. The original KBIT demonstrated strong significant concurrent correlations with the Wechsler Intelligence Scale for Children—Revised (r = .80) and Wechsler Adult Intelligence Scale—Revised (r = .75) (Kaufman & Kaufman, 1990). Independent studies in special samples

displayed similarly strong and significant correlations with the Wechsler Intelligence Scale for Children—Third Edition (*r* = .89; Canivez; Neitzel & Martin)." Dr. McGrew Report, 5/23/17, Def. Ex. 57, at 10.

104. Mr. Roland's deficits in intellectual functioning are evidenced by the KBIT-2 given by Dr. Morgan in 2017, which resulted in a Flynn-corrected score of 74 with a confidence band of 69-79. See Dr. Hunter report, 4/28/17 at 16; Dr. McGrew Report, 5/23/17 at 6 (Table 1); Dr. McGrew direct, 6/26/17 Tr. 81.

105. The Flynn Effect is an accepted practice in the field of intellectual disability. The Flynn Effect "refers to the increase in iQ scores over time (i.e., about 0.30 points per year). The Flynn effect affects any interpretation IQ scores based on outdated norms. Both the 11th edition of the manual and this User's Guide recommend that in cases in which a test with aging norms is used as part of a diagnosis of ID, a corrected Full Scale IQ upward of 3 points per decade for age of norms is warranted." AAIDD User's Guide, Def. Ex. 39b at 23; see also AAIDD-11, Def. Ex. 39a at 37 (the precise calculation is .33 times the number of years that have elapsed from the last time the test was normed until taken by the subject).

106. "Best practices require recognition of a potential Flynn effect when older editions of an intelligence test (with corresponding older norms) are used in the assessment or interpretation of an IQ score." AAIDD-11, Def. Ex. 39a at 37.

107. "The main recommendation resulting from this work [regarding the Flynn Effect] is that all intellectual assessment must use a reliable and appropriate individually administered intelligence test. In cases of tests with multiple versions, the most recent version with the most current norms should be used at all times. In cases where a test with aging norms is used, a correction for the age of the norms is warranted." AAIDD-11, Def. Ex. 39a at 37.

108. The Flynn effect recognizes "overly high test [IQ] scores due to out-of-date test norms." DSM-5, Def. Ex. 22c at 37.

109. The recognition of norm obsolescence and the need for Flynn effect adjustments for IQ scores based on out-of-date national test norms (a) is recognized as a scientific fact, (b) is considered best professional practice, and (c) standard procedural guidelines have been provided by AAIDD to adjust for norm obsolescence. See Dr. McGrew Report, 5/23/2017, Def. Ex. 57 at 13.

110. Dr. Alan Kaufman, one of the leading intelligence experts, states that it is important to correct for the Flynn Effect in capital cases. "I respect the diversity of opinion on the topic of capital punishment, and the statistical complexity that surrounds the [Flynn Effect], but I am firmly in the camp … that IQs obtained on outdated norms should be adjusted for the [Flynn Effect] in capital punishment cases." Lichtenberger and Kaufman, Essentials of WAIS-IV Assessment, p. 41; see also Dr. McGrew direct, 6/26/17 Tr. 73.

111. The Flynn Effect should be applied to both the WAIS scores and the KBIT-2 score from 2017. See McGrew direct, 6/26/17 Tr. 74-77; 81 (at 75, citing Alan Kaufman, the creator of the KBIT-2's opinion that the Flynn effect should apply to the KBIT); see also Hunter Report, 4/28/17, Def. Ex. 40 at 16-17; see also AAIDD User's Guide, supra, Def. Ex. 39b at 23 ("Flynn effect affects *any* interpretation of IQ scores based on outdated norms").

112. Mr. Roland's deficits in intellectual functioning are evidenced by a determination by the Social Security Administration's disability designation of Mental Retardation when Mr. Roland was 14 years old. See Def. Ex. 17 at SSA.0007; see also discussion, infra, Criterion 3.

113. For "a case involving mild intellectual disability … IQ scores [would] be a part of the determination" "[v]irtually all the time," and as such it is reasonable to conclude that the

Social Security Administration administered an IQ test on Mr. Roland when he was 14 years old. Dr. Huber direct, 6/25/17 Tr. 24; see also discussion, infra, Criterion 3.

114. In the case of "mild" intellectual disability, "[a]n IQ test by itself is not adequate" for the Social Security Administration to determine that an applicant is intellectually disabled. Dr. Huber cross (in response to the Court), 6/26/17 Tr. 37-38.

115. As a result, the Social Security Administration looks at IQ scores in conjunction with other sources of information, such as teacher evaluations, to corroborate the applicant's level of intellectual and adaptive functioning, and it is reasonable to conclude that such occurred in Mr. Roland's case. See Dr. Huber cross (in response to the Court), 6/26/17 Tr. 37-39; see also discussion, infra, Criterion 3.

116. Dr. Hunter's testing was valid. Dr. Hunter administered the Test of Memory Malingering (TOMM), a Performance Validity Test, designed to determine whether a person is malingering. Mr. Roland passed the TOMM. See Dr. Hunter report 4/28/2017 at 12.

117. The TOMM is a well-accepted stand-alone measure of performance validity. See Dr. Bigler direct, 6/23/17 Tr. 57.

118. The TOMM is a valid measure for assessing the validity of testing someone with intellectual disability. See Dr. Bigler direct, 6/23/17 Tr. 58.

119. Dr. Hunter also administered the California Verbal Learning Test (CVLT) in order to determine whether Mr. Roland was malingering. Mr. Roland passed that test with a 16/16 correct. See Defense 19e, Summary Score Sheet; Dr. Hunter direct, 6/6/17 Tr. 168.

120. The CVLT forced choice embedded validity measure is an appropriate test for individuals with intellectual disability. See Dr. Bigler direct, 6/23/17 Tr. 59; see also Marshall &

Happe, The Performance of Individuals with Mental Retardation on Cognitive Tests Assessing Effort and Motivation, Def. Ex. 89.

121. Several embedded measures of validity in Dr. Hunter's testing were also passed by Mr. Roland. They were the Reliable Digit Span, list learning in the RBANS, the Rarely Missed Items on the Wechsler Memory Scale, the Digit Span/ Vocabulary Difference. All of these possible indications of malingering were passed by Mr. Roland. See Dr. Hunter report 4/28/2017, Def. Ex. 40 at 13-15; Dr. Hunter Raw Data Gov. Ex. 170 and 170a; Dr. Bigler direct, 6/23/17 Tr. 59-62; Dr. Denney cross, 06/22/2017, Tr. 173.[1]

122. Dr. Hunter's clinical impressions were that Mr. Roland put forth good effort and was trying hard to do his best throughout the testing. Dr. Hunter noted this in his notes contemporaneously, in his report, and in his testimony. See Def. Ex. Exhibit 44 Dr. Hunter's Notes ("showing solid collaboration and motivation"; "sustained solid effort, patience"); Dr. Hunter Report 4/28/17 at 12 ("Across both testing sessions, Mr. Roland presented as collaborative"; Mr. Roland evidenced a "seriousness towards the evaluation itself"; "When observed to become most frustrated with the demands of a task, encouragement for continued effort (when allowed) was seen to help Mr. Roland remain engaged and focused. He always attempted to provide a response to the demands presented to him, although he was open in acknowledging challenge with complex and difficult tasks. Effort and motivation were appropriate; completion of the TOMM, a measure of potential malingering as well as motivation, led to scores of 44 and 49 across the two administered trials. This is indicative of adequate investment and engagement (and is consistent with effort test scores obtained during the

[1] Dr. Denney's report stated that Mr. Roland's Reliable Digit Span score of 5 on the 2016 test "fell below expectations for valid task performance, particularly when looking at his pattern of performance and realizing the fact he was able to obtain an RDS of 8 in 2017." See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 11. Dr. Denney corrected his report and testified that Mr. Roland in fact passed the embedded Reliable Digit Span measure with both Dr. Hunter and Dr. Morgan. See Denney cross, 6/22/17, Tr. 173.

evaluation conducted by Dr. Morgan in March 2017"); Dr. Hunter direct, 6/6/17 Tr. 129 ("I would say the key thing throughout all the testing with Mr. Roland was his willingness to try very hard. He was putting in effort, always."); Id. Tr. 152-153 ("Q. You also noted use of humor to deflect when answer unknown? A. So he would smile, he would offer jokes at times, yeah. He was definitely trying to respond. But, and he was more comfortable than not, I don't know, we would say give it a try. Q. What about his collaboration or motivation? A. My observation of him throughout the testing is that he was following directions that we were "that he was working as hard as he could, I think it was clear there was frustration and uncertainty at times. Q. Why do you think that in your observation that he was trying hard? A. I believe that he took this seriously. And I think he also understood that this was something that was important that was being asked of him. And again, the numbers allow us to test and consider motivation and effort, he passed those.").

123. The examiner is in the best position to assess the test taker's motivation and effort, and their impressions are considerations to be taken into account. See Dr. Denney Cross, 6/22/17 Tr. 195 ("Q: You would agree, I think you said before, that the examiner administration the testing is in the best position to determine whether or not somebody is feigning good effort? A: Whether they are applying themselves to the task and whether there are significant emotional difficulties that may be disrupting the test data, because that cause those data take to be less valid. That is true."). When questioned by the Court, Dr. Denney again affirmed that the mental impressions of the examiner are important. See Denney cross, 6/22/17 at 195-196 (THE COURT: I think you said earlier with respect to Dr. Farber and her observations, we have to be guided by that, now, that evaluator at the time. THE WITNESS: That is true. THE COURT: And

their mental impressions were important, Dr. Farber's mental impressions were important, right? THE WITNESS: Correct.").

124. Dr. Bigler testified about the importance and value of examiner's notes like Dr. Hunter's. See Dr. Bigler direct, 6/23/17, Tr. 105-107.

125. Dr. Morgan's testing was also valid because of the multiple effort measures that Mr. Roland passed.

126. Dr. Morgan administered the TOMM, and Mr. Roland passed that measure of performance validity. See Dr. Morgan cross 6/19/17 at 46-47; Dr. Bigler direct, 6/23/17 Tr. 58.

127. Dr. Morgan administered the CVLT forced choice embedded validity measure. Mr. Roland passed that measure. See Dr. Morgan cross, 6/19/17 at 46-47; Dr. Bigler direct, 6/23/17 Tr. 58.

128. Mr. Roland also passed the Reliable Digit Span embedded validity measure with Dr. Morgan. See Dr. Morgan Testimony, 6/16/17 at 14-15, 6/19/17 at 46-47; Dr. Morgan raw data, Gov. Ex. 166; Dr. Bigler direct, 6/23/17 at 59; Dr. Denney cross, 6/22/17 at 173.

129. Mr. Roland passed the list learning test in the RBANS with Dr. Morgan with a score of 18 out of 20. See Dr. Bigler direct, 6/23/17 at 59-60, 127.

130. Mr. Roland passed the SIMS standalone validity measure with Dr. Morgan. See Dr. Morgan 4/28/17 Report, Gov. Ex. 167 at 9. "On the Structured Inventory of Malingered Symptomatology (SIMS) his total score of 11 was below the cutoff of 23," indicating Mr. Roland "passed the other indices."

131. "Ordinarily, this would suggest that the test data, to be discussed as follows in this report, are valid and a credible representation of his cognitive function." Dr. Morgan Report 4/28/17 , Gov. Ex. 167 at 9.

132. Mr. Roland passed the Symptom Validity Measures in the MMPI with Dr. Morgan. See Dr. Morgan cross, 6/19/17 at 47, 6/16/17 at 143; Dr. Bigler direct, 6/23/17 at 57, 62.

133. In sum, Mr. Roland passed a total of six different indications of performance validity with Dr. Hunter, including both standalone and embedded measures.

134. Mr. Roland passed a total of five different indications of performance validity with Dr. Morgan, and one measure of Symptom Validity (the MMPI). See Dr. Bigler direct, 6/23/17, pp. 57-62.

135. In total, Mr. Roland passed a total of twelve different indications of performance and symptom validity measures, including both standalone and embedded measures, across both testing sessions from Dr. Hunter and Dr. Morgan.

136. The accepted clinical standard is to accept the results of IQ and neuropsychological testing when there are passed validity scores. See Dr. Bigler direct, 6/23/17 Tr. 44-45 ("If you pass these validity measures, and the test results internally make sense with regards to history, background, information, that you have, clinical presentation, eyes on observation of the individual, then you trust the data."); see also Dr. Hunter direct, 6/12/17 Tr. 202-203 ("effort testing .... is an important component to understanding the effort and consistency of effort, and the motivation that individuals present during testing. We use that set of tools I use with him when I am testing in my clinic as well, generally with adolescents and older individuals into adulthood because I think it actually helps us understand when an individual is presenting with appropriate test orientation and engagement, and it gives clues as to whether we are getting sub par performance. Ultimately the tests that were administered by me

and with the second testing everything was passed. I think that highlights for us that there is commitment and effort that is being given to this.").

137. "The neuropsychological tests have been done in the presence of what appear to be tasks, symptom performance validity effort measures, and the embedded aspects have been tasked, and there are ways of describing or demonstrating why any discrepancy or any aspects of the testing might be interpreted differently, but if there is a way to explain that, you accept the findings. You accept that this is a valid evaluation." Dr. Bigler direct, 6/23/17 Tr. 45.

138. "And if you have a mystery that resonates with the likelihood of having an impairment, and you have passed symptom and performance validity test scores, and even if you go into looking at the individual test items and you can see that there is potential reasonable explanation for what went on you accept the finding as a reflection of what the person's ability is." Dr. Bigler direct, 6/23/17, Tr. 119.

139. Mr. Roland's test scores comport with his clinical history, including a SSA designation and a prior KBIT score. See Dr. Bigler direct, 6/23/17, Tr. 65-66; discussed, supra regarding risk factors, and infra, Criterion 2 and 3.

140. Mr. Roland was given a designation of Mental Retardation by Social Security when he was 14 years old, in 1999. That determination is also valid. See discussion, infra, Criterion 3.

141. Mr. Roland received Supplemental Supplemental Security Income ("SSI") benefit payments beginning on January 17, 1996 as a result of the Social Security Administration's initial determination when Mr. Roland was 11 years old that he was learning disabled. See 6/8/17 Tr. 108, 125, 130-134; see also Def. Ex. 17 at SSA.0005, SSA.0008; see also discussion, infra, Criterion 3.

142. As a result, in 1999 there was no reason for Mr. Roland to feign or fake his responses to the IQ test that was administered to him during his continuing disability review. See Def. Ex. 17 at SSA.005-SSA.008; see also discussion, infra, Criterion 3.

143. For the same reasons, Mr. Roland possessed no secondary motive or secondary gain with respect to the SSA's 1999 continuing disability review and IQ testing. See, generally, Def. Ex. 17; Brucker testimony, 6/8/17; Dr. Huber testimony, 6/26/17; see also discussion, infra, Criterion 3.

144. Mr. Roland was tested and obtained a 70 IQ on the KBIT in 2002, when he was 17 years old. See Def. Ex. 9a at 55, 58. His Composite IQ was 70 +/- 7, Vocabulary IQ 75 +/- 8, Matrices IQ 69 +/1. See Def. Ex. 9a at 58; see also Dr. Hunter direct, 6/6/17 Tr. 190 (explaining that Mr. Roland's Composite IQ of 70 is significant because it "give[s] me information that at that time he had been given, even given all of the circumstances that were at play with him, he was showing challenges … consistent with the ones that I obtained").

145. Dr. Farber, the doctor who administered the K-BIT test, noted that when taking the test Mr. Roland was "cooperative with this interviewer and the interview process," thereby indicating that Mr. Roland was not feigning when he took the test. See Def. Ex. 9a at 59.

146. Dr. Farber also noted that his estimated level of intellectual functioning was "low average." See Def. Ex. 9a, at 99.

147. Mr. Roland, in sum, obtained an IQ of 68 (Flynn-corrected) on Dr. Hunter's testing in November 2016; an IQ score of 72 (Flynn-corrected) on Dr. Morgan's testing in March 2017, and a 74 (Flynn-corrected) on the KBIT-2 in 2017. All of these scores are compellingly consistent, meet the criteria for intellectual deficits, and as such are a true picture of Mr. Roland's limited intellectual functioning.

148. Consistency of scores is important to a clinical diagnosis and to the validity of test results. See Dr. McGrew direct 6/26/2017 Tr. 107, and 6/27/2017 Tr. 28; see also Dr. McGrew Report, Def. Ex. 57 at p. 11, 21 Figure 3, and 28; see also Dr. Bigler direct, 6/23/17, Tr. 155 (When asked if consistency was relevant to validity, Dr. Bigler answered "if you are testing at one point in time, you get similar results at another point in time, and that is consistent with the history, and it is consistent with the diagnosis or diagnoses being made. So consistency is very important."); see also Dr. Hunter 5/22/17 Report, Def. Ex. 41 at 2-3; see also Dr. Hunter 4/28/17 Report, Def. Ex. 40 at 16.

149. "An additional source of IQ score consistency and convergence is a form of 'within-WAIS-IV' score evidence. Mr. Roland's two sets of the four WAIS-IV composite index scores are plotted and compared in Figure 2. All four sets of respective comparisons of the 95 % SEM confidence score bands (e.g., Verbal Comprehension 1 vs Verbal Comprehension 2) for Time 1 (November 2016) and Time 2 (March 2017) overlap, which indicates there is no statistically significant difference between each respective Time 1 and Time 2 scores." See Dr. McGrew Report, 5/31/17, Def. Ex. 57; see also Dr. McGrew direct, 6/26/17 Tr. 88. ("There is no statistically significant difference between these four different estimates of general intelligence.[2] It also tells me that there is a high degree of convergence. And we talk to psychology, we talk about multiple forms of convergence. If you have multiple pieces of information telling you the same thing, you are confident that that, afterwards, that it is valid. And this is another term I was probably, this is compelling consistency. Across four tests, one given 2002, and 3 given in 2016

[2] With respect to the 2002 KBIT and the 2017 KBIT-2: "Although not statistically significantly different, the specific scores (69, 74) do reveal a 5-point increase. This marginal increase is likely due to three possible reasons: (a) it is not a significant increase when measurement error is considered; (b) unique within-session practice effects for the WAIS-IV and KBIT-2 matrix reasoning item types, or (c) the fact that the KBIT and KBIT-2 scores are not 100% comparable due to changes made in the composition of the matrix reasoning test items from the KBIT to the KBIT-2." See Dr. McGrew Report, 5/31/17, Def. Ex. 57 at 9, 30-31.

and 17, and there are two on different tests. It is compelling consistency tells me that these are, trained to hit on the same spot, on the bell curve basically.")

150. Mr. Roland had a similar pattern of strengths and weaknesses across the testing between Dr. Morgan and Dr. Hunter. McGrew direct, 6/26/17, Tr. 107 ("With the exception, this is a statistically significant change, general shape, visually is the same. Mountains and valleys, strengths and weaknesses. The important thing that quantified that, it is correlation of point 86. Q. So what is the correlation of point 86? A. That is the correlation between the patterns. That is extremely high. That means his patterns of strengths and weaknesses, although the scope of raw scores may be different, the pattern is very stable."); see also Dr. McGrew Report, Def. Ex. 57 at 29, Figure 5.

151. All of these scores are proof that Mr. Roland has deficits in intellectual functioning sufficient to meet a diagnosis of intellectual disability. See AAIDD-11 at 35, Def. Ex. 39a; DSM-5, Def. Ex. 22c at 33.

152. There are also indications in Mr. Roland's records of deficits in intellectual functioning, in addition to his test scores. The DSM-5, again, provides that deficits in intellectual functioning are evidenced by deficits in reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience. See DSM-5 at 33.

153. Dr. Farber, when Mr. Roland was 17 years old, noted that his judgment was fair to poor, his impulse control was fair, and his insight was poor. See Defense Exhibit 9a, p. 100. Dr. Farber commented that her evaluation "reveals a young man who has very poor judgment and little insight into his behaviors." See Defense Exhibit 9a, p. 59. During a substance abuse screening and interview at the Juvenile Justice Commission when Mr. Roland was 17 years old, Mr. Roland "appeared somewhat cognitively limited." See Defense Exhibit 9a, p. 85. In 2005,

while in the custody of NJ Department of Corrections, Mr. Roland "presented as cognitively, socially and behaviorally immature individual with limited judgment and decision-making to Dr. Nancy Brunner, who noted "concrete thinking" as well. See Gov. Ex. 110 at 7.

2. Standard Error of Measurement, Confidence Intervals and Accurate Reporting of IQ Scores

154. "The SEM is used to calculate the confidence interval, or the band of scores around the observed score, in which the individual's true score is likely to fall. Confidence intervals express test score precision and serve as reminders that measurement error is inherent in all test scores and that observed test scores are only estimates of true ability." Def. Ex. 24, WAIS-IV Manual, p. 46; see also Dr. McGrew Report, 5/23/2017, Def. Ex. 57 at 7 ("A person does not obtain a specific IQ score when tested. A person obtains a range of possible IQ test scores with a certain degree of confidence (in this case, 95% confidence; Kaufman, 2009)").

155. "An IQ score is subject to variability as a function of a number of potential sources of error, including variations in test performance, examiner's behavior, cooperation of test taker, and other personal and environmental factors. Thus, variation in scores may or may not represent the individual's actual or true level of functioning. The term *standard error of measurement,* which varies by test, subgroup, and age group, is used to quantify this variability and provide a stated statistical confidence interval within which the person's true score falls." AAIDD-11, Def. Ex. 39a at 36.

156. "The concept of error tolerance in measurement and experiments is recognized in most sciences, as well as the need to account for acceptable levels of error when presenting scientific data and evidence. Since IQ tests do not possess perfect reliability, there is a degree of known error in each IQ test score. As per scientific and professional standards, each of Mr. Roland's IQ test scores should be interpreted as a range of scores—bounded by a 95%

confidence interval band (+/- 5 IQ score points). The notion of an acceptable error tolerance of 5% (conversely, a 95% confidence interval) has a long history in the sciences, and is grounded in reasoned logic, mathematical and statistical theory, and statistically tractable mathematical quantification of the characteristics of the normal curve." Dr. McGrew Report, 5/23/2017, Def. Ex. 57 at 5.

157. The standard of error of measurement is meant to account for the variability and factors that occur on every test that cannot be controlled (including "external factors," "variabilities in how a person approaches different tasks that have to do with environment," as well potentially "their understanding of the question at that moment"). See Hunter direct, 6/7/17, Tr. 3-4.

158. When interpreting Mr. Roland's IQ test scores, professional standards and clinical accuracy requires utilizing the 95% confidence interval band from each assessment and not the point-specific IQ score obtained. See Dr. McGrew Report, 5/23/2017, Def. Ex. 57 at 7. See also Dr. Hunter direct, 6/7/17 at 15-16.

159. The 95% confidence interval is also the professional consensus confidence interval recommended by professional guidelines promulgated for the evaluation of IQ test scores in the diagnosis of intellectual disability in high stakes settings (i.e., eligibility for social security benefits; Atkins death penalty cases). See McGrew Report, 5/23/2017, Def. Ex. 57 at 5. Dr. Denney and Dr. Morgan both agreed that the 95% confidence interval is to be used for composite index and Full Scale IQ scores. See Denney cross, 6/22/17, Tr. 89. See Dr. Morgan cross, 6/19/17, Tr. 10.

160. There is no statistically significant difference in the Full Scale IQ scores between Dr. Hunter and Dr. Morgan's testing. See Dr. Hunter Report, Def. Ex. 40 at 16. See Dr. Hunter

Rebuttal Report, Def. Ex. 41 at 2 and 7. See Dr. McGrew Report, Def. Ex. 57 at 8-9. See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 13-14. See Dr. Denney cross, 6/22/17, Tr. 86. See Dr. Morgan cross, 6/19/17, Tr. 17.

161. Both Full Scale IQ tests are within the standard error of measurement confidence band values of each other. Dr. Hunter's Flynn-corrected score of 68 has a confidence interval of 65-73; Dr. Morgan's Flynn-corrected score of 72 has a confidence interval of 68-77. The two K-BIT scores are also within the standard error of measurement confidence band values of each other and the FSIQ tests. The 2002 KBIT (if Flynn corrected to a 69; without Flynn correction a 70) confidence band value is 63-75; and the 2017 KBIT-2 Flynn-corrected score of 74 has a confidence band value of 68-80. See Dr. McGrew 5/23/17 Report, Def. Ex. 57, at 8.

162. There is no statistically significant difference in the index scores between Dr. Hunter and Dr. Morgan's testing. See Dr. McGrew Report, Def. Ex. 57 at 10-12 and Figure 2. See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 13-14. See Denney cross, 6/22/17, Tr. 86. See Morgan Cross, Tr. 40-41.

163. The most reliable scores on IQ tests are the Full Scale Scores and the Index Scores. See WAIS-IV Manual Def. Ex. 24 at 43 ("The reliability coefficients for WAIS-IV composite scores are excellent and are generally higher than those of the individual subtests that comprise the composite scores. This difference occurs because each subtest represents only a narrow portion of an individual's entire intellectual functioning, whereas the composite scores summarize the individual's performance on a broader sample of abilities. The high overall average reliability coefficients for the WAIS-IV composite scores are as expected. The average reliability coefficient for the PSI, although still in the excellent range, is slightly lower than the other composite scores."); see also Dr. McGrew Report, Def. Ex. 57 at 21, Figure 3. See

McGrew direct, 6/26/17, Tr. 66-67 and 115-116. See Bigler direct, 6/23/17, Tr. 69-70, 73. See Hunter direct 6/6/17, Tr. 118 and 120. See Morgan redirect, 6/19/17, Tr. 164 (lines 6-11) See Denney cross, 6/22/17, Tr. 86-88 and 91.

164. The psychometrics of an IQ test are designed to aggregate data from the item level to the subtest level to the index scores to the Full Scale IQ scores, and "[a]s per long-established psychometric theory and principles… at each successive level of summation or aggregation the reliability (and validity) of the resulting score indices increases. As noted by the bracket at the bottom of Figure 3, only the WAIS-IV composite scores (index scores and Full Scale IQ) possess the most appropriate levels of reliability for making critical high-stakes decisions regarding individuals (AAIDD, 2010; AERA, APA, NCME, 2014; McGrew, 2015a; Watson, 2015; Widaman, 2015)." See Dr. McGrew Report, 5/23/17, Def. Ex. 57 at 20-22. See Dr. McGrew direct, 6/26/17, Tr. 119.

165. "It is long been known in the field of psychometrics that individual subtest items have very low reliability (typically ranging from .10 to .40; e.g., Davis, 1956; Saunders, 1960)," and, quoting from the literature, that "[s]ingle items are notoriously unreliable, meaning that they have large error components. If errors are random, sometimes they will inflate and sometimes they will deflate the observed estimate of the true score. When repeated measurements are taken over time, there will be inconsistency (unreliability) in the observations. With multiple items combined into an estimate of the true score, errors will tend to average out, leaving a more accurate and consistent (reliable) measurement from time to time (Spector, 1992, p. 20)." See Dr. McGrew Report, Def. Ex. 57 at 20-21.

166. "If you go to aggregate score level, not weeds, the full scale score beings full index score. [They a]re not significantly different. That is the height of compelling consistency.

That is the level of the most valid score. We have got it at the level of the pattern of the score. And we also got converge end information from the KBIT saying the same thing." Dr. McGrew direct, 6/27/17 Tr. 83.

3. Matrix Reasoning

167. It is not appropriate to examine individual subtests scores in order to assess validity. They are the most unreliable scores, and have the greatest variability. See Dr. McGrew report, 5/31/17, Def. Ex. 57 at 23.

168. Only one subtest score, Matrix Reasoning, changed significantly from Dr. Hunter's testing to Dr. Morgan's testing. Nine of out 10 subtest scores were not statistically different between Dr. Hunter and Dr. Morgan's testing. See Dr. Morgan cross, 6/19/17, Tr. 9.

169. It is not appropriate to talk about scores going "up" or "down," in a test-retest situation, when they are within the confidence intervals. This is because the "true score" should be reported as a range. See Dr. McGrew Report, 5/31/17, Def. Ex. 57 at 25-26. "When using other statistical comparison methods (viz., reliable change score or standard error of the difference) the two Matrix Reasoning scores (4 and 7) are determined to be statistically significantly different. However, the other 9 WAIS-IV Time 1 to Time 2 subtest score comparisons reveal scaled score differences ranging from -2 to +2, none of which reflect statistically significant changes in scores. Thus, Dr. Morgan's statement that Mr. Roland 'performed better on a number of subtests in my assessment that he did with Dr. Hunter, he actually performed worse on others' is not based on scientific fact or reliable methods of science. Furthermore, of the 10 score differences (of which only one is statistically different; Matrix Reasoning), 7 (70%) of the differences reflect either no score change or slight increases in scores (+ or 0 values in "difference" column). Only 3 of the 10 test score differences (30%) reflect score

decreases, of which only one is statistically significant. Dr. Morgan's statement about performing "better" or "worse" on the respective WAIS-IV Time 1 and Time 2 subtests is not supported by scientific evidence, reliable methods of science, and professional standards and guidelines. His statement is misleading."

170. Furthermore, 69% of the time it is expected that one score would significantly increase between two sessions on a WAIS-IV test-retest scenario. See Dr. McGrew direct, 6/26/17, Tr. 143-145; Dr. McGrew direct, 6/27/17, Tr. 66; Def. Demonstrative Exhibit 2, Dr. McGrew PowerPoint, Slide 26 and 27.

171. Practice Effects are expected in a test-retest situation when the retest was less than one year. See AAIDD-11, Def. Ex. 39a, p. 38; see, generally, Dr. McGrew Report, 5/31/17, Def. Ex. 57, item 40, at 33-41; see also Alan S. Kaufman, Practice Effects, in 2 ENCYCLOPEDIA OF HUMAN INTELLIGENCE 828, 828–33 (Robert J. Sternberg et al. eds., 1994); AAIDD User's Guide at 23.

172. "When individuals are tested repeatedly on Wechsler's [nonverbal and speeded] tasks, they no longer measure the kind of intelligence that thrives on novel problem-solving tasks with visual-spatial stimuli, and it becomes questionable whether they measure intelligence." (Kaufman, A. S., & Lichtenberger, E. 0. (2006). Assessing adolescent and adult intelligence (3rd ed.). New York: Wiley, p. 165)). "Practice effects on Wechsler's scales tend to be profound, particularly on the Performance Scale" Id. at 202. Dr. Kaufman notes "predictable retest gains in IQs" when similar tests are given within a short period of time. *Id.* There are tests that monitor speed, and "on second exposure subjects may be able to respond more quickly, thereby gaining in their scores." *Id.* at 204. "One year interval results in far less pronounced practice effects." *Id.* at 208. The AAIDD manual clearly states that "established clinical practice is to avoid

administering the same intelligence test within the same year to the same individual because it will often lead to an overestimate of the examinee's true intelligence." AAIDD 2010 at 38.

173. "Practice effects are not based on the exposure to exact same sets of items between a first and second assessment. Mr. Roland would not necessarily need to see the 'new' Matrix Reasoning items he had not seen previously during his first WAIS-IV to perform better on his second WAIS-IV Matrix Reasoning test administration." Dr. McGrew Report, 5/31/17, Def. Ex. 57 at 19, 32; see also Dr. Hunter Report, 5/22/17 at 5-6.

174. It is not verbal comprehension scores that are the ones most commonly seen to increase across time. "In fact, it is anticipated that the perceptual reasoning score, reflective of novel problem solving, will increase most significantly with repeat administrations of the WAIS-IV. A 'large jump' is in fact expected." Dr. Hunter Report, 5/22/17, at 12, citing, inter alia, Whitaker, S., The stability of IQ in persons with low intellectual ability: An analysis of the literature, Intellectual and Developmental Disabilities, 46, 120-128 (2008).

175. Dr. Hunter observed these practice effects in the testing between him and Dr. Morgan. Dr. Hunter cited the correct definition of practice effects. He noted that "practice effects represent the learning and memory of a specific context of a test and its components, not just acquired knowledge of completed items within a test."

> "*Practice effects* refer to gains in scores on cognitive tests that occur when a person is retested on the same instrument, or tested more than once on very similar ones. These gains are due to the experience of having taken the test previously; they occur without the examinee being given specific or general feedback on test items, and they do not reflect growth or other improvement on the skills being assessed. Such practice effects denote an aspect of the test itself, a kind of systematic, built-in error that is associated with the specific skills the test measures. These effects relate to the test's psychometric properties, and must therefore be understood well by the test user as a specific aspect of the test's reliability …

> No specific length of time between tests is required to study practice effects; it depends on the generalization sought or needed. If the interval is very short—for example, a few hours, or a couple of days—then examinees are likely to remember many specific items that were administered. They are likely to retain specific picture puzzles, arithmetic problems, or block designs, and recall the strategies that proved most successful; the result is an inflated estimate of the practice effect—that is, relative to an inference about established (learned) effects. In contrast, intervals that are long, perhaps six months or a year or two, are confounded by variables other than the test's psychometric properties and practice as such. Long intervals allow forgetting of the test's content, and therefore reduce the magnitude of the practice effects; at the same time, in lengthy intervals there can be real growth or decline of the abilities measured. When change has occurred, it becomes difficult to separate the test's practice effects, as such, from the person's improvement or decay on the skills."

Dr. Hunter Report, 5/22/17 at 5-6 (citation omitted).

176. Citing the WAIS-IV Manual, Dr. Hunter noted that "[t]he range of difference observed for the Matrix Reasoning subtest (a component subtest of the Perceptual Reasoning Index) across the testings conducted of Mr. Roland by myself and Dr. Morgan is indicative of Mr. Roland's recognition of the broader context of the measure itself and its demands across a relatively short period of time (e.g., a time frame that is suggested in fact by the developers of the WAIS-IV to be short and vulnerable to significant practice effects)." Id. at 6. Dr. Hunter stated that "[t]his is a commonly observed phenomenon with testing using initially novel information and tasks, that once engaged, becomes encoded and remembered. As a result, future performances can become much stronger given that experience and recognition." Id. (citations omitted). Dr. Hunter noted that the testing conducted by him and Dr. Morgan "shows highly consistent findings… and that are in fact consistent with previous results obtained and made available within the academic records regarding Mr. Roland." Dr. Hunter Report, 4/28/17 at 16.

177. Matrix Reasoning has one of the lowest test-retest stability coefficients of all of the subtests. See Dr. McGrew Report, 5/31/17, Def. Ex. 57 at 21. See also WAIS-IV Manual, Def. Ex. 24, at 48 table 4.5. See also Dr. McGrew direct, 6/26/17, Tr. 116-117 (the Matrix Reasoning subtest "is tied for bottom in terms of stability over time"). See also, Dr. McGrew direct, 6/27/17, Tr. 30.

178. The Matrix Reasoning test-retest stability of .74 is contrary to Dr. Morgan and Dr. Denney's assertion that the only explanation for a statistically significant change in scores between the two administrations is poor effort or malingering. "The test-retest stability (reliability) for Matrix Reasoning in this sample is .74. This indicates that in the one WAIS-IV study presented in the manual, first and second scores are not expected to be perfectly stable for all individuals, an incorrect assumption which would require one to assume a perfect stability coefficient of 1.0." See Dr. McGrew Report, 5/23/17, Def. Ex. 57 at 36. See also McGrew direct, 6/26/17, Tr. 117. ("Q. So does that mean -- what does that mean, if it is tied for bottom for stability? That means you would expect more variation? A. It means if you tested somebody time 1 and time 2, the variability in the scores between two time would be greater than it would be for like test information. Which is a point 9. You would expect those scores to be more similar between time 1 and time 2. Very few tests a lot of people on matrix reasoning, you are going to see a lot of moving around of the scores.")

179. Using a single statistically different Matrix Reasoning subtest score difference, when Matrix Reasoning has a reliability coefficient of .74, to undermine 9 other subtests, four other index scores, and a full scale IQ with a reliability coefficient of .96 is inappropriate. See Dr. McGrew Report, 5/23/17, Def. Ex. 57 at 23. See also WAIS-IV Manual, Def. Ex. 24, at 48 table 4.5.

180. Further, in addition to practice effects, the variation in the Matrix Reasoning score between the two testing administrations could be explained by impairment, guessing or strengths kicking in during the second administration. See Dr. McGrew direct, 6/27/17 Tr. 29; 6/27/16 Tr. 153-154, 164; Dr. Bigler cross, 6/23/17 Tr. 192-196.

181. With respect to the overall approach to deeming both WAIS-IV Full Scale IQ scores invalid on the basis of the Matrix Reasoning subtest score difference and item-level comparisons, Dr. McGrew testified that:

> In my 42 years of being a practicing psychologist who did a lot of intelligence testing and a professor who taught this material, even to teachers, teaching at the University of Minnesota in the psychology program, how to do these assessments, doing research on the fundamental characteristics of how you interpret the psychological tests and psychometric information, writing four books on how do it, one of them on the Wechsler's Scales, and developing the intelligence tests and basically my fraternity and sorority of people I hang with at conferences, I can name, all of the major publishers and the authors of these tests. In my 42 years of experience I have never seen the validity of an intelligence test, especially two tests that are highly consistent, and then two other KBITs, when you just, state correctly are consistent. I have never seen the validity of intelligence tests with such consistency questioned based on looking at what do they say to this item, what did he say in this item, and talking about raw score differences, which you shouldn't be doing, if you are talking about these scores, only one test changed over the time significantly, that was matrix reasoning. And if he only got one raw score point different higher at the beginning, one low score point less at the other one, we wouldn't even be, he wouldn't have had a significant difference according to the reliable change. I have never seen going down to this level of minutia in terms of the hierarchy of how intelligence tests are built. All psychological tests are built from the bottom up, the aggregate. I have never seen this. It does not comport in terms of what, with the prevailing scientific standards, community standards in psychological testing and particularly in intelligence testing, and I am just kind of, I am, I am flabbergasted.

See Dr. McGrew Direct, 6/27/17, Tr. 28- 29.

182. Just because there is a demonstrated practice effect on one subtest does not mean that there would be practice effect on each subtest. See McGrew direct, 6/26/17, Tr. 161.

183. It is important to take into account human behavior, which "is full of lots of complexities. And that means when we are looking at test retest factors, there are lots of complexities that one has to take into consideration" Dr. Bigler direct, 6/23/17 Tr. 75. "Q: Doctor, even with all the psychometrics, is there still variability that is not accounted for? A. Absolutely. Yes. There is always variability. Q. And the IQ test, how does that rank in terms of the psychometrically sound instrument within neuropsychology? A. It is probably the most sound psychometrically, just as that test retest was demonstrating, the Full Scale IQ score was in fact the most reliable index of everything." Dr. Bigler direct, 6/23/17, Tr. 77.

184. Mr. Roland's test-retest performance is what is expected for people with intellectual disability: his FSIQ, and even his Index Scores, remained stable over time. Mr. Roland does not "get richer," as one would expect for someone who is not "rich." See McGrew direct, 6/26/17, Tr. 161. See also Rapport et al, Full scale IQ as mediator of practice effects: The rich get richer, Def. Ex. 38ff.

185. Again, it is inappropriate to make analyses of inherently unreliable and highly variable subtest scores. Mr. Roland's FSIQ and Index scores remain within the confidence intervals between Dr. Hunter and Dr. Morgan's testing. His overall score does not increase from Dr. Hunter to Morgan's testing, from a Flynn-corrected 68 to a Flynn corrected 72. This is because the scores should be reported as a range, not as a number. See AAIDD-11, Def. Ex. 39a at 36. See Dr. McGrew Report, 5/23/17, Def. Ex. 57 at 8 Figure 1, and at 12 Figure 2. (Showing the confidence bands for all of Mr. Roland's IQ scores and composite scores).

186. Confidence intervals should also be reported when reporting standard errors of estimation. See Def. Ex. 24, WAIS-IV Manual, at p. 46:

> The confidence intervals provided in Tables A.3-A.7 in the Administration and Scoring Manual and Table C.1 of this manual were derived by a slightly different method. The 90% and 95% confidence intervals for the composite scores are based on the estimated true score and the standard error of estimation (SEE).
>
> * * *
>
> This method centers the confidence interval on the estimated true score rather than on the observed score... A confidence interval based on the estimated true score and the SEE is a correction for true-score regression toward the mean. For example, if a 55-year-old examinee obtained an FSIQ score of 113, the examinee's estimated true score will be 112.7, the 95% confidence interval of the examinee's true FSIQ score will be 109-117 (because the 95% confidence interval is 112.7 ± 1.96 SEE, where the SEE is 2.08), and the 90% confidence interval of the examinee's true FSIQ score will be 109-116 (112.7 ± 1.65 SEE).

See also Dr. McGrew direct, 6/27/17, Tr. 67-74; 76-80 (discussing that in fact, under ACS software test-retest analysis, Mr. Roland's two Matrix Reasoning scores on Dr. Hunter's and Dr. Morgan's testing are actually within the Standard Error of Estimate).

4. Even Item and Subtest Level Analysis Supports The Validity of Dr. Hunter and Dr. Morgan's Testing.

187. Again, it is not appropriate to "get in the weeds" with the individual questions, raw scores, or subtest scores in order to impugn the validity of the IQ testing. See Dr. McGrew Report, 5/23/17, Def. Ex. 57 at 23. ("Dr. Morgan's interpretation has inverted a core fundamental principle of test score development and interpretation on its head—he presents detailed analysis of a select and limited subset of the most unreliable pieces of information (i.e., item level

information for two items and changes in scores for one of 10 subtests) provided by the WAIS-IV.")

188. Even the support that Dr. Denney and Dr. Morgan cite as the basis for their methodology does not justify their conclusions. The "Slick article" cited by Dr. Denney cautions that "[t]o conclude that a person is malingering, one must rule out the alternatives. A thorough consideration of differential diagnoses is required. Careful consideration of the consequences of diagnostic error is also required. Clinicians need to keep well in mind the limitations of assessment methodology and the cost of false positive errors. A 'reasonable doubt' strategy should always be applied to decisions about the probability that a patient is malingering." See Def. Ex. 85f at 558.

189. Dr. Denney and Dr. Morgan did not "rule out alternatives," did not "keep well in mind the limitations of assessment methodology, and did not employ a "'reasonable doubt' strategy" when making the claim that it is "more likely than not that Mr. Roland has been malingering neurocognitive dysfunction." See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 24.

190. Dr. Denney stated that Mr. Roland showed an "improper test taking attitude" because Mr. Roland said "Cat in the Hat" wrote Hamlet on Dr. Hunter's exam. See Dr. Denney Report, 5/31/17, Def. Ex. 68 at 11.

191. Dr. Hunter testified that Mr. Roland's "Cat in the Hat" answer was indicative of "An impulsive response out of frustration, uncertainty." See Dr. Hunter direct, 6/6/17, Tr. 152. Dr. Hunter believed Mr. Roland "was not sure about a response." See Dr. Hunter direct, 6/6/17, Tr. 152. On cross examination, Dr. Denney testified that "if a person is impulsive, it can affect their answers." See Dr. Denney cross, 6/22/17, Tr. 211.

192. Dr. Bigler affirmed during his testimony that in order for someone to be malingering, they have to know the right answer, and provide a false one. It is not malingering if Mr. Roland does not know the correct answer. See Dr. Bigler direct, 6/23/17, Tr. 48.

193. With respect to the Digit Span subtest, Dr. Denney stated that Mr. Roland "could repeat up to 7 digits forward, yet he could not repeat a string of 4, 5, or 6 digits twice in a row" on the Digit Span subtest, results he testified "indicate[d] the WAIS-IV result from November 2016 is not valid." See Dr. Denney Report, 5/31/17, Def. Ex. 68, p. 11. See also Dr. Denny direct, 6/21/17, Tr. 134- 136.

194. "Task engagement is a brain function. Effort and task engagement at their fundamental level are brain responses. There are in fact neurologic disorders that affect motivation, drive, ability to sustain attention, ability to focus. Those can all be brain variables." See Dr. Bigler direct, 6/23/17, Tr. 91. Dr. Bigler testified that rather than poor effort being the only explanation for Mr. Roland's 2016 Digit Span subtest scores, "If there is variable task engagement with the forward aspect, the person just may muster up more attention with the reverse aspect: That is something that can happen." See Dr. Bigler direct, 6/23/17, Tr. 90.

195. Task engagement is itself a neuropsychological construct reflective of an ability: "Task engagement is attention, ability to focus. Task engagement is understanding the nature of what is the task, and carrying it forth." See Dr. Bigler direct, 6/23/17, Tr. 90.

196. Dr. McGrew also testified about Mr. Roland's performance on Dr. Hunter's administration of the 2016 Digit Span subtest, explaining like Dr. Bigler that this performance could be used to draw out clinical information about Mr. Roland rather than to invalidate the test: "I think it is an interesting pattern of the first trial, first trial wrong, second trial, right. Next, five, first trial wrong, second trial, right. You see a pattern, first trial wrong, first trial wrong, second

trial right. The reason you get two trials in this test is because you are trying to find out what is the maximum number of digits you can remember. So the most important thing is how many you get. If he doesn't do it, both of them, they can't do that capacity, they can do it once, that means, yes, once they disengaged, figure things out, and are less anxious, that is, that brain gets ramped up, they can improve. So he had a first trial, and as you are going through the test you know they are getting more difficult. The next one is harder. Based on that, I, he might be more anxious about it, they are doing it, they get a chance to practice, that number digit, and then for the next one is okay, I practiced it. I developed some strategies, I kind of, I am going to focus a little bit more, and still, the possibility, intentional control. I used to see this with children all the time with attentional problems or impulsivity problems, executive function problems." See McGrew direct, 6/27/17, Tr. 44-45.

197. Mr. Roland's neuropsychological profile is consistent with Dr. McGrew's and Dr. Bigler's analysis. As noted in Dr. Hunter's report, neuropsychological test data indicated that for Mr. Roland "substantial variability was observed with objective measures utilized, specifically regarding his capacity to effectively sustain his attention as information load increase," that "difficulties were clearly observed" on neuropsychological measures of focus and engagement, that "these results highlight a significant vulnerability to missing key information across both verbal and visual presentation, and challenge, specifically in the context of processing speed demands, on attention to detail," and that he had "substantial deficits with executive functioning, memory, and information processing speed."

198. Stating that Mr. Roland has neuropsychological difficulties with his capacity for task engagement is different than saying he presents with poor effort or malingering; Dr. Hunter testified that he "would say the key thing throughout all the testing with Mr. Roland was his

willingness to try very hard. He was putting in effort, always."). Hunter direct, 6/6/17, Tr. 152-153.

199. When asked if Dr. Denney was correct that Mr. Roland's presentation on digit span is "not how the brain works," Dr. McGrew answered: "No. This is how the brain may work for a specific individual. And when you put an individual into it, and observing him on the testing, he was distractible, he is slow to engage on task, does he have executive function problems, does he have problems inhibiting himself? Is he impulsive at first?" See Dr. McGrew direct, 6/27/17, Tr. 47.

200. Dr. Denney claimed that Mr. Roland's five errors on Dr. Morgan's 2017 coding subtest suggests "poor task engagement" and "does not make clinical sense for a person who can perform arithmetic in his head." See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 12.

201. Dr. McGrew noted the multiple possible indications of impairment that could account for the errors:

> A possible explanation is, the person gets slowly engaged in figuring out, they are not as focused at first, then they focus on intentional control, the frontal network, start to engage. There is a learning process, you are learning the association between numbers and visual symbols, that is associative memory. The more trials you get at it, when you first see it basically you haven't had a lot of practice, you have only done the sample in a demonstration. So you haven't made that connection yesterday. This goes with this, this goes with this. You probably make more errors when you learning this, this goes with this. On any task. Once you get going, it becomes more automatized. One goes with this symbol. It gets consolidated in your memory. It goes quicker. This is typical during initial phases of learning a skill acquisition, in all learning, people make more errors when they are first trying something new. I would look at possible attentional control problems, function problems. Depending what I see, a person in front of me, anxiety problems, strategy issues. Takes him a while to get the strategy, which is the cognitive executive function test, and the associative memory strategies. Some people made mnemonics. That is verbal mediation, see if they get it. This is the

> initial phases of learning something, is, you tend to make more errors. But that is probably, there are possible other explanations that might be affecting clinically someone with cognitive impairment, what we call efficiency.

See Dr. McGrew direct, 6/27/17 Tr. 51-52.

202. Dr. Bigler also testified that the only explanation for Mr. Roland's 2017 coding subtest score was not poor effort or malingering. Rather his examination of the raw data suggested Mr. Roland could have been daydreaming at the beginning and then became engaged, and noted that "the point is we have, there are alternative explanations, not that it is just feigning. Or poor effort. And remember, effort does require engaging the brain if the task. So it is part, it is a dimensional aspect of what is going on, when the person is doing these tests." Dr. Bigler also affirmed that task engagement is itself a neuropsychological factor. See Dr. Bigler direct, 6/23/17 at 94-96.

203. Dr. Denney and Dr. Morgan both claim that the fact that Mr. Roland correctly answered certain WAIS-IV Information subtest questions correctly in 2016 and incorrectly in 2017—in particular "What is water made of?" and "On what continent is Brazil?"—suggest that the test data is not valid. See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 13 and Gov. Ex. 167 at 12.

204. Dr. McGrew addressed these points in his rebuttal:

> This statement is not based on any known scientific research regarding the ability of an individual to provide similar answers to individual test items across a four-month interval. It must be kept in mind that during the testing, Mr. Roland is not provided feedback regarding the correctness of his responses. Thus, it is possible that Mr. Roland was not 100% confident in his responses and knowledge during his Time 1 administration of the Information subtest, and this was expressed with different answers four months later. To expect 100% perfect agreement for all WAIS-IV individual test items across a four-month interval is misleading and inconsistent with the known low reliabilities of

> individual test items. As explained above, the weak reliability of individual test items does not prevent one from obtaining reliable subtest scores as per the principle of test aggregation. At the subtest level, the standard error of measurement (SEM) provides a statistical estimate that includes as possible sources of error sub-optimal test item fluctuations due to such factors as fatigue, temporary lapses of concentration, momentary disturbances in the quality of the test environment, possible examiner error, etc. Fluctuations in performance resulting in some sub-optimal effort is not to be confused with deliberate malingering (MacVaugh & Cunningham, 2009). Finally, I am unaware of any established scientific method for determining the validity of an individual's tested performance at the item level across time. Of course, if these types of answer discrepancies are constant across most test items across most subtests (compelling inconsistency), then this information may be informative. But as presented, Dr. Morgan provides only two examples from one subtest (Information), and as noted previously, the final total score differences from Information at Time 1 and Time 2 are not statistically significantly different (which, in a sense, is confirmation of the power of the principle of test information aggregation to "control for" or "cancel out" random sources positive and negative error to produce a reliable total score).

See Dr. McGrew Report, 5/31/17, Def. Ex. 57 at 27-28; see also Dr. Hunter direct, 6/6/17 Tr. 154, who noted that Mr. Roland was not confident in his answers. Dr. McGrew also testified that we may be unsure about things that are on the edge of our knowledge. Dr. McGrew direct, 6/27/17 Tr. 36-38.

205. Dr. Denney claims in his report that comparing Mr. Roland's 2017 arithmetic scale score of 10 to his 2017 Digit Span scale score of 6 indicates that the test results are not valid. See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 12.

206. Dr. Bigler testified that the Arithmetic component of the WAIS has verbal, language, and context aspects that are not present in Digit Span such that the two subtests involve different tasks that engage different neurological functions: "The arithmetic component of the WAIS is a verbal questioning. So that is engaging the individual in language, and that is

engaging the individual in a verbal computation that they are having to view. There is contextual information there. There isn't contextual information with digits. It is 1, 3, 7. Okay. How are you going to make some kind of an association with that? I only have -- but you, in mental arithmetic, it is, I gave you two oranges and you already had three, how many do you have? Well, I can look at my hand, I can maybe mentalize it in some way. They are different tasks, the moment that you alter the task you have altered the way the brain is processing, and it is a different neurological function… The verbal aspect of mental arithmetic in the Wechsler scale is different than what is in the digit span task. So there are straightforward ways to explain these findings." See Dr. Bigler direct, Tr. 86- 88.

207. Dr. Denney claimed that the difference in 2017 between Mr. Roland's Symbol Search scale score of 7 and Coding scale score of 3 indicate that the test results are not valid. See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 12. Yet he acknowledged that the correlation, according to the WAIS Manual is only point 65, meaning they only have 42 percent in common. See Dr. Denney cross, 6/22/17 Tr. 209.

208. Dr. Bigler explained that although tests can be correlated, there are still difference. With respect to arithmetic and coding subtests, "there is only accounting for 25 percent of the relationship. 75 percent of the relationship is unknown." See Dr. Bigler direct, 6/23/17 Tr. 99.

209. Dr. Bigler testified with respect to the arithmetic and coding subtests that, contrary to Dr. Denney's assertion that the difference does not make clinical sense, "[Y]ou are explaining a quarter of the association with those two variables. But 75 percent of why those scores are different you don't know on. It could be anything." See Dr. Bigler direct, 6/23/17 Tr. 71.

210. Dr. McGrew testified with respect to digit span that low performance on the first trial of a subtest can in fact be useful clinical information, rather than not making "clinical sense," and that Mr. Roland displayed this pattern, indicating this was an impairment of his. See McGrew direct, 6/27/17, Tr. 44-45.

211. Dr. Denney and Dr. Morgan testified that the 30 point scaled score drop in Mr. Roland's RBANS Delayed Memory test from 2016 to 2017 indicates that the testing results are invalid. See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 13. Dr. Denney and Dr. Morgan also testified that the RBANS Delayed Memory score of 44 obtained by Mr. Roland during Dr. Morgan's 2017 exam is invalid because it is too low. See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 13.

212. Dr. Bigler testified that the 74 on Dr. Hunter's 2016 administration of the RBANS Delayed Memory is "probably the more accurate assessment" of Mr. Roland's memory. See Bigler direct, 6/23/17, Tr. 128.

213. However, Dr. Bigler testified that the 30 point RBANS Delayed Memory scaled score drop is reflective of a small raw score difference, which is a result of the raw score being at the tail-end of the distribution and hence sensitive to small changes. See Dr. Bigler direct, 6/23/17, Tr. 122. See also Dr. Bigler direct, 6/23/17, Tr. 124 - 125.

214. Dr. Bigler also testified that a low RBANS Delayed Memory scaled score is to be expected for someone with a low IQ as the two scores correlate. See Dr. Bigler direct, 6/23/17, Tr. 120. See also Dr. Bigler direct, 6/23/17, Tr. 124.

215. Dr. Bigler also testified that contributing factors to the 44 RBANS Delayed Memory score could have been fatigue as well as other types of variability not accounted for in

the development of the test, and that this score could have been an "outlier." See Bigler direct, 6/23/17, Tr. 129 - 133.

216. Furthermore, when asked if the 44 score invalidated the results of the entire test, Dr. Bigler answered "No. Because I mean, every psychologist that has been on the stand has said something about clinical correlation and having to look at the totality of the clinical picture, and the 44 obviously sticks out. And you picked up on that, your Honor. So you look at that and you go, oh my gosh, what is that 44? How do you explain that? Well, you go back to the raw data. In this case, the raw data analysis helped you to explain the difference. That the magnitude of what he didn't recall is minimal." See Bigler direct, 6/23/17, Tr. 134 - 135. See also Dr. Bigler Report, 5/22/2017, Def. Ex. 55 at 7. ("Turning to the Delayed Memory index score, Dr. Morgan does not provide statements based on raw data comparisons, only on the standard score comparisons, which frankly are misleading. Dr. Morgan's findings are listed first and Dr. Hunter's are in parentheses and highlighted. The raw data reflects the following scores for the Delayed Memory index: List Recall 4 (**5**), List Recognition 18 (**20**), Story Recall 5 (**6**) and Figure Recall 5 (**4**). Obviously, at the raw data level, these scores are not discrepant. When looking up the standard score in the RBANS Update Administration Manual, under ages 20 – 39 (Table 26) the intersection of Dr. Morgan's evaluation places the Standard score at 44, but note this is at the end of the List Recognition statistical distribution, with a score of 18. Mr. Roland's score of 20 with Dr. Hunter, jumps his score up by 30 standard score points (74) because he recalled one more word on the List Recall. This is entirely within expected limits of variability and simply cannot be interpreted as a discrepant finding.")

217. The RBANS subtests discussed are also embedded validity measures, and Mr. Roland passed both. See Bigler direct, 6/23/17, Tr. 59. ("The RBANS has the potential

embedded symptom, performance validity measure, and that is when you go back and ask if this word was on the list, again, it is a binary choice. And this time around there are 20 items on that. I believe when he saw Dr. Hunter he got them all correct. This is where he made two errors with Dr. Morgan, that is well above the cut point on that, with regards to an embedded measure of performance validity. So he passes that in the RBANS.")

218. Dr. Denney states that the fact that Mr. Roland "performed over a standard deviation lower for each hand during the Grooved Pegboard Test" in 2017 as compared to 2016 indicates that the testing is invalid. See Dr. Denney Report, 5/31/17, Def. Ex. 68, at 13.

219. Dr. Bigler noted during his testimony that in the dominant hand Grooved Pegboard, the confidence intervals from 2016 and 2017 administrations in fact overlap. See Dr. Bigler cross, 6/23/17, Tr. 205 -206.

220. Dr. Bigler noted during his testimony that the confidence intervals from 2016 and 2017 administrations in the non-dominant hand Grooved Pegboard do not overlap (See Bigler cross, 6/23/17, Tr. 206 (line 20-21), "if you see something like that, and you have a concern, well, is this feigning? There is some very, very straightforward motor tests that you can do that look at feigning. If you are there, evaluating somebody and you think, oh my gosh, that can't be accurate. Then you could do some very quick motor tests that would help you understand that particular score. That wasn't done. So we didn't know what this means. We don't know." See Dr. Bigler cross, 6/23/17, Tr. 206.

221. When asked, "The concept of decline in a test-retest is not abnormal?" Dr. Bigler answered, "Correct: It does happen… Low percentage, but it does happen." See Bigler direct, 6/23/17, Tr. 142.

222. The fact that such decreases in scores are not clinically unknown is contrary to Dr. Denney's assertion that a score decrease "does not make clinical sense."

223. Again, Dr. McGrew also addressed this issue, stating that many of these score decreases are within the confidence band such that there is no statistically significant change, and also that the presence of one increased score due to practice effect does not mean the same increase will be present in all scores. See Dr. McGrew Report, 5/31/17, Def. Ex. 57 at 25-26. See McGrew direct, 6/26/17, Tr. 161.

D. Criterion 2: Deficits in Adaptive Functioning

1. General Principles in Assessing Adaptive Behavior

224. Mr. Roland has deficits in adaptive behavior in one or more of the conceptual, practical or social domains. See AAIDD-11 at 44.

225. Limitations in the individual's functioning "must be considered within the context of community environments typical of the individual's age peers and culture. Thus, the standards against which the individual's functioning are compared are typical community-based environments, not environments that are isolated or segregated by ability or current placement." AAIDD User's Guide at 25; see also AAIDD-11 at 45 ("the person's strengths and limitations in adaptive skills should be documented within the context of the community and cultural environment typical of the person's age peers").

226. With respect to Criterion 2, the DSM-5 defines deficits in adaptive functioning as "how well a person meets community standards of personal independence and social responsibility, in comparison to others of similar age and sociocultural background." DSM-5 at 37.

227. "Adaptive functioning involves adaptive reasoning in three domains: conceptual, social, and practical." DMS-5 at 37.

228. "The *conceptual (academic) domain* involves competence in memory, language, reading, writing, math reasoning, acquisition of practical knowledge, problem solving, and judgment in novel situations, among others." DSM-5 at 37 (emphasis in original).

229. "The *social domain* involves awareness of others' thoughts, feelings, and experiences, empathy, interpersonal communication skills, friendship abilities, and social judgment, among others." DSM-5 at 37 (emphasis in original).

230. The *practical domain* involves learning and self- management across life settings, including personal care, job responsibilities, money management, recreation, self-management of behavior, and school and work task organization, among others." DSM-5 at 37 (emphasis in original).

231. "Intellectual capacity, education, motivation, socialization, personality features, vocational opportunity, cultural experience, and co-existing general medical conditions or mental disorders influence adaptive functioning." DSM-5 at 37.

232. "[W]ithin an individual limitations often coexist with strengths." AAIDD-11 at 1. "Individuals may have capabilities and strengths that are independent of their ID (e.g., strengths in social or physical capabilities, some adaptive skill areas, or one aspect of an adaptive skill in which they otherwise show an overall limitation)." Id. at 7.

233. "Significant limitations in conceptual, social, or practical adaptive skills [are] not outweighed by the potential strengths in some adaptive skills." AAIDD User's Guide at 47.

234. The inquiry should focus on "[d]eficits in adaptive functioning." DSM-5 at 33.

235. The following five assumptions are "essential" to the application of the definition of intellectual disability:

> 1. Limitations in present functioning must be considered with the context of community environments typical of the individual's age peers and culture.
>
> 2. Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavior factors.
>
> 3. Within an individual, limitations often coexist with strengths.
>
> 4. An important purpose of describing limitations is to develop a profile of needed supports.
>
> 5. With appropriate supports over a sustained period, the life functioning of the person with intellectual disability generally will improve.

AAIDD User's Guide at 1. See also Dr. Hunter direct, 6/6/17, Tr. 43-45; Dr. Greenspan direct, 6/12/17 Tr. 42; Dr. Morgan cross, 6/16/17, Tr. 144; Dr. Marcopulos cross, 6/20/17, Tr. 111 ("Severity levels can change in terms of how they are functioning, yes. I mean, someone can, again, get some supports and function a little higher. Q. And indeed, the end of that paragraph, improvement in levels, continuing, is, is determined by supports and ongoing intervention? A. Yes.").

236. Criterion B is met when at least one domain of adaptive functioning - conceptual, social, or practical - is sufficiently impaired that ongoing support is needed in order for the person to perform adequately in one or more life settings at school, at work, at home, or in the community." DSM-5 at 38; AAIDD-11 at 46 ("generalized deficit is assumed even if the score on only one domain meets the operational criterion . . .").

237. Adaptive functioning should be assessed with information from a variety of sources, including personal interviews and the review of records and other data. AAIDD User's Guide at 18. This normally involves "a systematic review of the individual's family history, medical history, school records, employment records (if an adult), other relevant records and information, as well as clinical interviews with a person or persons who know the individual well." AAIDD-11 at 45.

238. A person with a higher IQ "may have such severe adaptive behavior problems . . . that the person's actual functioning is comparable to that of individuals with a lower IQ score." DSM-5 at 37.

239. The diagnostic criteria for intellectual disability do not require exclusion of accompanying diagnoses. "Co-occurring mental, neurodevelopmental, medical and physical conditions are frequent in intellectual disability, with rates of some conditions (e.g., mental disorders, cerebral palsy and epilepsy) three to four times higher than in the general population." DSM-5 at 40. In fact, rather than be separate from Intellectual Disability, "the prognosis and outcome of co-occurring diagnoses may be influenced by the presence of Intellectual Disability." Id.

240. The DSM-5 notes that "[t]he most common co-occurring mental and neurodevelopmental disorders are ADHD; Depressive and Bipolar Disorders (with and without aggression); Anxiety Disorders; Autism Spectrum Disorder; Stereotypic Movement Disorder (with or without self-injurious behavior); Impulse Control Disorders; and Major Neurocognitive Disorder. Major Depressive Disorder may occur throughout the range of severity of Intellectual Disability…. Individuals with Intellectual Disability, particularly those with more severe

Intellectual Disability, may also exhibit aggression and disruptive behaviors, including harm of others or property destruction." AAIDD-11 at 41.

241. It is important to focus on "typical," not "maximum" performance in assessing deficits in adaptive behavior. AAIDD-11 at 47. The AAIDD stresses using "knowledgeable informants," who are "very familiar with the person and have known him/her for some time and have had the opportunity to observe the person function across community settings and times…. Obtaining informant from multiple respondents and other relevant sources (e.g. school records, employment history, previous evaluations) is essential to providing corroborating information that provides a comprehensive picture of the individual's functioning." Id.

242. When considering the selection of adaptive behavior measures, the AAIDD does not specify or preference a particular measure.

243. An adaptive behavior assessment should include "multiple respondents and multiple sources of converging data. Relevant archival data may include medical evaluations, school records, prior psychoeducational evaluations, Social Security Administration records, employment history, and family history." AAIDD-11 at 50.

244. In selecting an adaptive behavior instrument, "longevity alone does not validate a test's results for diagnostic purposes." AAIDD-11 at 50.

245. "The use of a standardized adaptive behavior scale is often insufficient to capture all aspects of an individual's adaptive behavior. Elements of adaptive behavior that are related to adult social adaptive skills or higher order interpersonal skills are lacking from most existing adaptive behavior scales. See Marc J. Tasse, Adaptive Behavior Assessment and the Diagnosis of Mental Retardation in Capital Cases, Applied Neuropsychology, February 2009.

246. "[W]hen making a determination of ID, the assessment of a person's adaptive behavior [should] be conducted in a thoughtful manner and incorporate multiple third-party respondents and multiple sources of information." Def. Ex. 37a, Marc J. Tasse, Robert L. Schalock, et al. Construct of adaptive behavior 2012, Vol. 117, No. 4, 291–303, American Journal on Intellectual and Developmental Disabil.

247. Retrospective assessments are contemplated and accepted in the clinical literature. See AAIDD-11 at 46 ("A retrospective diagnosis may be required, for example, when clinicians are involved in … evaluating individuals involved in legal processes, such as … sentencing eligibility questions"). When doing a "retrospective diagnosis," the AAIDD sets forth the following standards for clinicians. Clinicians should weigh the extent to which:

> (a) multiple informants were used and multiple contexts sampled; (b) that limitations in present functioning were considered within the context of community environments typical of the individual's age peers and culture; (c) important social behavioral skills, such as gullibility and naïveté, were assessed; (d) behaviors that are currently viewed as developmentally and socially relevant were excluded; and (e) adaptive behavior was assessed in reference to typical and actual functioning in the community.

AAIDD-11 at 46.

248. The AAIDD states that a clinician must use a "multimethod approach" to measuring adaptive behavior. The clinical standard cautions that "clinicians must recognize that adaptive behavior instruments are imperfect measures of personal competence that distinguish persons with and without ID as they face the everyday demands of life. For example, credulity and gullibility can provide key information for a diagnosis of ID. Dr. Greenspan (1981, 1999, 2006a; Greenspan, Loughlin & Black, 2001) has long argued that the victimization of people with ID, observed in social and economic exploitation, is a central problem in diagnosing ID.

Because there are currently (this was written before the publication of the ABDS) no standardized measures that assess adaptive skills related to credulity and gullibility, these characteristics must be considered in the clinical judgment of adaptive behavior limitations." AAIDD-11 at 51.

249. "[Q]ualitative and descriptive information, including from witnesses and the records, [is] ... the most important" material to rely on in assessing adaptive behavior… In the clinical determination of whether Mr. Roland is a person with ID, the most weight is and should be given to the qualitative and descriptive data." Dr. Greenspan Report, 4/28/17 at 16.

250. When intellectual disability is found to exist, it is classified by four levels of severity: Mild, Moderate, Severe, and Profound. See DSM-5 at 33.

251. "The various levels of severity are defined on the basis of adaptive functioning, and not IQ scores, because it is adaptive functioning that determines the level of supports required." DSM-5 at 33.

252. In the "Mild" level of intellectual disability, the DSM-5 describes the "Conceptual domain" as:

> For preschool children, there may be no obvious conceptual differences. For school-age children and adults, there are difficulties in learning academic skills involving reading, writing, arithmetic, time, or money, with support needed in one or more areas to meet age-related expectations. In adults, abstract thinking, executive function (i.e., planning, strategizing, priority setting, and cognitive flexibility), and short-term memory, as well as functional use of academic skills (e.g., reading, money management), are impaired. There is a somewhat concrete approach to problems and solutions compared with age-mates.

DSM-5 at 34, Table 1.

253. In the "Mild" level of intellectual disability, the DSM-5 describes the "Social domain" as:

> Compared with typically developing age-mates, the individual is immature in social interactions. For example, there may be difficulty in accurately perceiving peers' social cues. Communication, conversation, and language are more concrete or immature than expected for age. There may be difficulties regulating emotion and behavior in age-appropriate fashion; these difficulties are noticed by peers in social situations. There is limited understanding of risk in social situations; social judgment is immature for age, and the person is at risk of being manipulated by others (gullibility).

DSM-5 at 34, Table 1.

254. In the "Mild" level of intellectual disability, the DSM-5 describes the "Practical domain" as:

> The individual may function age-appropriately in personal care. Individuals need some support with complex daily living tasks in comparison to peers. In adulthood, supports typically involve grocery shopping, transportation, home and child-care organizing, nutritious food preparation, and banking and money management. Recreational skills resemble those of age-mates, although judgment related to well-being and organization around recreation requires support. In adulthood, competition employment is often seen in jobs that do not emphasize conceptual skills. Individuals generally need support to make healthcare decisions and legal decisions, and to learn to perform a skilled vocation competently. Support is typically needed to raise a family.

DSM-5 at 34, Table 1.

255. The AAIDD stresses using "knowledgeable informants," who are "very familiar with the person and have known him/her for some time and have had the opportunity to observe the person function across community settings and times…. Obtaining informant from multiple respondents and other relevant sources (e.g. school records, employment history, previous

evaluations) is essential to providing corroborating information that provides a comprehensive picture of the individual's functioning." AAIDD-11 at 47.

256. Informants are not limited, but include caretakers, siblings, as well as peers. See Def. Ex. 75, Tassé, supra at 119 ("Other individuals who may provide valuable adaptive behavior information include: older siblings, grandparents, aunts, uncles, neighbors, teachers, coaches, employers, coworkers, friends, or other adults who may have had multiple opportunities over an extended period of time to observe the individual in his everyday functioning in one or more contexts (e.g., home, leisure, school, work, community)").

257. Peers are appropriate to use as informants for deficits in adaptive behavior. See Greenspan direct 6/12/17 Tr. 76 ("The main criterion is do they know him well and are they being truthful. My clinical judgment, I thought certainly they, Habeeb and Amin knew Mr. Roland better than almost anybody. And produced a wealth of information, that was validated across with other people with other information."); Greenspan redirect 6/14/17 Tr. 95 ("Q. And you were asked about using appear, Mr. Habeeb Robinson, as a rater. Do you feel that people who are the same age have important information about somebody's functioning? A. Depends on their relationship and it depends on their own developmental level and it also depends on whether there are other credibility witnesses available. Sometimes you have to do, you have to go with the witness's that are available, even if you would rather have had someone else. Habeeb had a very intimate relationship with Farad. I think he was almost like a brother. Very frequent contact. Even though younger[3], was significantly more advanced. And I felt that he would be important person to be interviewed because he had a lot of information.").

[3] Earlier Dr. Greenspan testified that "I thought he was about the same age." Greenspan cross, 6/13/17 Tr. 172.

258. Dr. Greenspan stated that he "found the witnesses I spoke with to be credible informants. Their descriptions of Farad's limitations were similar. They were individuals who had ample opportunity to observe his behavior over time. Amin [Roland], Gigi [Jeanette Carter], and Krystal [Taylor] knew Farad throughout his life. He lived with Jovan [Gardner] and Kaia [Macon], and Habeeb [Robinson] was his closest friend from approximately ages 7-10." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 23.

259. "The witnesses were also quite emphatic and clear, and descriptive, in discussing his deficits. Amin and Kaia described their genuine frustration in dealing with Farad's incompetence. They admitted to not always being sympathetic to Farad—as his limitations were their burdens to carry, and at times they resented him." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 23-24.

260. "The overarching principle for obtaining a valid and reliable finding [regarding adaptive behavior] is convergent validity. Convergent validity is achieved by integrating multiple sources of information." Def. Ex. 39c, The Death Penalty and Intellectual Disability, p. 206.

261. Dr. Greenspan affirmed during his testimony that the people he spoke to while performing his evaluation corroborated each other "very much so." See Greenspan direct, 6/12/17, Tr. 106.

2. Information Not Relevant to An Assessment of Adaptive Behavior

262. "The diagnosis of [intellectual disability] is not based on the person's street smarts, behavior in jail or prison, or criminal adaptive functioning." AAIDD User's Guide at 20; see also Tassé, supra, ID Definition and Diagnostic Criteria at 13 ("assessing an individual's adaptive behavior in an institutional context is not relevant for the purpose of making a determination of ID. Assessing if someone is well adaptive to an institutional setting (e.g. prison

or developmental setting) might be useful for determination if additional structure is needed or for planning interventions to facilitate integration, but has no relevance in determining how an individual's adaptive functioning compares to the general population for the purpose of ruling in/out a diagnosis of ID"); Exhibit 75, Marc J. Tassé (2009) Adaptive Behavior Assessment and the Diagnosis of Mental Retardation in Capital Cases, Applied Neuropsychology, 16:2, 114-123, at 119 ("Correctional officers and other prison personnel should probably never be sought as respondents to provide information regarding the adaptive behavior of an individual that they've observed in a prison setting. The only extreme circumstance when one might consider interviewing a member of the prison personnel regarding an inmate's adaptive behavior would be if there is absolutely no one alive who can provide any information regarding the individual's functioning prior to incarceration").

263. The reasons for not including behavior in a controlled setting like prison are that the standard requires consideration of adaptive functioning in the community, independently, and without supports. See Hunter direct, 6/6/17 Tr. 31-32, 64-65, 72; Greenspan direct, 6/12/17 Tr. 44-45; 6/13/17 Tr. 41 ("People with ID do better in highly supported environments. Prison is one of the more supported environments. Certainly there are few opportunities to make sure we deal with ambiguity or to deal with complex situations, and as I said, people with ID could, did better, often typically do better in highly structured environments. The real test is how they do in unstructured environments such as the community which is generally very unstructured or at least presents less opportunities to deal with novelty and ambiguity."); Greenspan cross, 6/13/17 Tr. 135-136 ("Q. And it is true because, according to the AAIDD, prison is a structured environment. A. It is not a community environment. And AAIDD by definition is based on how someone functions in the community, in, and the supports they need in the community. You

cannot generally lies generalize from a highly atypical environment, a non-community-based environment like prison or any other highly aggregated structured environment"); See also Exhibit 75, Tassé, supra at 119 ("The main hesitation to involving prison personnel as respondents is related to the nature and contingencies of the prison setting. The prison setting is an artificial environment that offers limited opportunities for many activities and behaviors defining adaptive behavior"); see also Def. Ex. 39c, Everington, C., Macvaugh, G., Salekin, K., Derning, T. Challenges in the Assessment of Adaptive Behavior of People Who Are Incarcerated, in The Death Penalty and Intellectual Disability, pp. 201-212, at 205 ("Authoritative sources agree that adaptive behavior assessment involves evaluating the individual's typical functioning in *community* settings and the degree of consistent independence achieved across conceptual, practical and social skill areas. These are skills that were acquired and demonstrated on a consistent basis in the individual's day-to-day life outside of an institutional setting" (emphasis in original). See also Greenspan Report, 4/27/17 at 26 ("ID should be inferred from ability to solve problems autonomously in an unstructured community situation or environment. Jails and prisons are highly structured environments where there are few opportunities to function autonomously. So it is a mistake to assume that because someone has learned the routines and rules of prisons means that they cannot have ID."). See Greenspan Rebuttal Report, 5/21/17 at 10 ("The AAIDD User's Guide states that "persons with intellectual disability generally will improve his or her life functioning with appropriate personalized supports over a sustained period.' - p. 1. Prison is a highly supported environment. The fact that [Mr. Roland] may have increased his competency while in prison is exactly what is expected and hoped for in working with people with ID. One can acquire improved competence in a supported environment, or in one domain, and this does nothing to dispute that his competencies

when he was in the community, or for the other domains relevant to prong two, is or was quite deficient.").

264. The other reasons for not using behavior in prison to determine whether an individual has deficits consistent with intellectual disability are there are no norms for evaluating adaptive behavior deficits in a prison setting. Cevasco cross, 6/15/17 Tr. 55 ("There are instruments that do it for the community, how they interact with, in a school environment, how think interact in a work setting. How they handle money. Can they do activities of daily living. Taking care of their hygiene. Those are, but there is no such instrument norms for a prison population.").

265. The AAIDD proscribes using verbal behavior to infer level of adaptive behavior. See Def. Ex. 39b at 20.

266. "One of the issues of adaptive behavior functioning is what is called cherry picking. We had this conversation, therefore, he can't have ID. It is totally out of the context of any kind of normative assessment or for that matter, norms. Same thing with criminal behavior. What is the norm for shooting a gun? We don't have those norms. We have no reason to think, I am not referring to this case. Just making a general statement. We don't have norms for those types of behaviors. Plus we don't know enough about the context. Often it looks like a competent behavior might be a plan that went awry. It actually was a very incompetent way of dealing with that situation." Greenspan direct, 6/13/17, Tr. 39 -40.

267. Experts or lay people should not be "taking an isolated conversation, or sentence, and opining that based on my experience, which may be very limited or it might not be, but based on my experience people with ID can't do that…. That is inappropriate, and certainly frowned upon." Tr. 40 -41.

268. Dr. Hunter was also familiar with the AAIDD's proscription on using verbal behavior, although he also reviewed letters and phone calls on the record and found them consistent with his diagnosis. See Hunter direct, 6/6/17, Tr. 41-42

269. Dr. Olley also criticized Dr. Morgan's use of verbal behavior and stated that "Dr. Morgan's examples do not in any way rule out ID" and are in fact "commonly displayed by people with intellectual disability." See Dr. Olley Report, Def. Ex. 53, Tr. 3-4.

3. Dr. Greenspan's Assessment

268. Dr. Greenspan is one of the pre-eminent scholars and authorities on adaptive behavior. He is the most-cited author in the AAIDD, and the online edition of the DSM-5. See Dr. Greenspan direct, 6/12/17 Tr. 6-11.

269. Citing a series of research on adaptive behavior dating back to before Atkins, Dr. Tasse notes that Dr. Greenspan "has devoted much of his career to studying and publishing on concepts that are often present in individuals with mild mental retardation but under-represented in standardized adaptive behavior scales: social competence, gullibility, naïveté, lack of wariness." Def. Ex. 75, Tassé, supra at 116.

270. Dr. Greenspan conducted a thorough and broad-based assessment of Mr. Roland's adaptive behavior. He spent several hours with multiple individuals, gaining not just scores on adaptive behavior instruments but qualitative and factual information relevant to the determination of Mr. Roland's adaptive behavior.

271. The individuals he interviewed, their impressions and memories of Mr. Roland's deficits in adaptive behavior, comport with one another as well as the records, the witnesses who testified at the hearing, and the results of the testing across Mr. Roland's life.

4. Deficits in the Conceptual Domain

272. "The conceptual (academic) domain involves competence in memory, language, reading, writing, math reasoning, acquisition of practical knowledge, problem solving, and judgment in novel situations, among others." See DSM-5 at 37.

273. In the conceptual domain for school-age children and adults in the mild level of ID, "there are difficulties in learning academic skills involving reading, writing, arithmetic, time or money, with support needed in one or more areas to meet age-related expectations. In adults, abstract thinking, executive function (i.e. planning, strategizing, priority setting, and cognitive flexibility) and short-term memory, as well as functional use of academic skills (e.g. reading, money management) are impaired. There is a somewhat concrete approach to problems compared with age-mates." See DSM-5 at 34.

274. Deficits in the moderate range for intellectual disability, reveal that "[a]ll through development, the individual's conceptual skills lag markedly behind those of peers. For preschoolers, language and preacademic skills develop slowly. For school-age children, progress in reading, writing, mathematics, and understanding of time and money occurs slowly across the school years and is markedly limited compared with that of peers. For adults, academic skill development is typically at an elementary level, and support is required for all use of academic skills in work and personal life. Ongoing assistance on a daily basis is needed to complete conceptual tasks of day to- day life, and others may take over these responsibilities fully for the individual." See DSM-5 at 35.

275. "The conceptual domain is very much tied to what we are concerned with, when we are performing a full neuropsychological evaluation. It is our goal to understand not only what the intellectual level is, but also how difficult is manifest for this individual with regard to academic skill development, with regard to abstract thinking, problem solving. Strategy

development. Flexibility. Problem solving. Short term and long term memory. And how they are able to actually make sense of expectations in the world, and then make stations about how to handle the demand." See Dr. Hunter direct, 6/6/17, Tr. 65 -66.

276. Neuropsychological testing can show deficits in the conceptual domain "because the conceptual domain is really dealing with how we understand. How we make sense of, and utilize what takes place around us, and help learn and grow from that. In fact, the task that we have with these measures that have been developed for neuropsychologists to use is to apply them in a way that then provides a very thorough understanding of the range of strengths and weaknesses that an individual has, and then guides us in a better understanding when we are making sense of these adaptive difficulties, what the contributing factors may be." See Dr. Hunter direct, 6/6/17, Tr. 70.

277. Executive functioning testing can provide a "bridge" between prong 1 and prong 2: "I meant to also mention that, it is also, also reflected in the discussion in DSM-5 of the role of neuro, of executive functioning type tests, because they do focus on reasoning, more than IQ tests really do. In a sense, therefore, the executive functioning tests are kind of a bridge between prong 1 and prong 2. Because prong 1 in this sense, they probably but they are prong 2 in the sense that the ability to participate consequences which is a big part of execute tough functioning also shows up in the ability to understand risk which I think DSM-5 also says is central." 6/12/17, Tr. 114. See also Dr. Greenspan recross, 6/14/17, Tr. 127.

278. Based on his neuropsychological testing as well as review of historical records, "there is evidence over time developmentally of significant adaptive deficits, there continue to be in the record descriptions of challenges with the conceptual aspects of adaptive functioning, in terms of reasoning, decision making, effective problem solving. Ultimately, these are consistent

with, and supported by the data that I have obtained from the neuropsychological evaluation." Dr. Hunter direct, 6/6/17, Tr. 199. See also, generally, Dr. Hunter 4/28/17 Report, Def. Ex. 40 at 3-16.

279. For all raters, the Adaptive Behavior Diagnostic Scale (ABDS) instrument administered by Dr. Greenspan produced scores that show Mr. Roland to be impaired in the Conceptual adaptive domain. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 16-18.

300. Although Dr. Greenspan committed errors in the scoring of his ABDS, correcting these errors did not change the finding that Mr. Roland was impaired in the Conceptual adaptive domain score for every rater. See Def. Ex. 50.

301. The Vineland-3 administered by Dr. Morgan to Ms. Cheryl Whitehead resulted in a communication domain score of 77, with a 90% confidence interval of 70-84. See Gov. Ex. 167 at 14.

302. On the Vineland-3 Mr. Roland is impaired in the communication domain at the 90% confidence interval. See Dr. Morgan cross, 6/19/17, Tr. 71- 72.

303. It is most reliable to use the 95% confidence interval when reporting scores, including on adaptive behavior instruments like the Vineland. This represents an individual's true score. See Dr. Hunter direct, 6/7/17 Tr. 15-16.

304. The AAIDD discussed the importance of using standard errors of measurement with the Vineland. See Dr. Morgan cross, 6/19/17, Tr. 75-76.

305. Using a 95% confidence interval, the lower end of the confidence band for the communication domain score of the Vineland-3 would be 68, a score that is also in the impaired range. See Dr. Morgan cross, 6/19/17, Tr. 72.

306. The communication domain on the Vineland corresponds to deficits in the Conceptual domain in both the AAIDD and the DSM-5 definitions of Intellectual Disability. The communication scores on the Vineland-3 are "considered conceptual, part of the conceptual domain." See Dr. Marcopulos cross, 6/20/17, Tr. 182.

307. When asked why, given that in order to meet the diagnosis for intellectual disability only one domain of adaptive functioning needs to be impaired, he did not note that Mr. Roland would meet the requirement for deficits in the conceptual domain, Morgan answered "Perhaps I should have, in retrospect." See Dr. Morgan cross, 6/19/17, Tr. 73.

308. Ms. Whitehead rated Mr. Roland as impaired in the communication domain, and that it is possible to have deficits in only one domain of adaptive functioning and meet the criteria for a diagnosis of intellectual disability. See Dr. Marcopulos cross, 6/20/17, Tr. 170-171.

309. By 1993, Mr. Roland was placed in Special Education with initial eligibility with a designation of "ED: Emotionally Disturb" by Newark Public Schools. See Student Data Listing, Def. Ex. 15a.

310. A designation of Special Education is evidence of deficits in the conceptual domain.

311. At the time Mr. Roland was receiving education from Newark Public Schools, special education services were deficient and not sensitive to intellectual disability specifically. See, generally, testimony of Andy D'Amato, 6/9/17. See also Newark School District Comprehensive Compliance Investigation Report, Volume 1, Def. Ex. 3 at internal page 394-395.

312. Andy D'Amato was a learning consultant on child study team for Newark Public School in the 1990's. See, generally, testimony of Andy D'Amato, 6/9/17.

313. Mr. D'Amato testified that at the time Mr. Roland was designated as Emotionally Disturbed (ED) by Newark Public Schools special education, ED was a common designation and did not preclude a designation of significant learning disabilities or educable mentally retarded ("EMR"). EMR corresponded to an IQ of 69 or below.

314. Mr. D'Amato affirmed that at the time he was seeing children who had significant cognitive impairments who also received a designation of ED. See D'Amato direct, 6/9/17, Tr. 74-75. An ED designation did not rule out cognitive impairment or EMR. Id. at 75.

315. Delores Lemon-Gresham worked at Hawthorne Avenue School, a pre-K to 8th grade school, from 1982-2002, as a special education teacher. See, generally, Lemon-Gresham testimony, 6/8/2017, Tr.165-198 and 6/9/107, Tr. 39-62.

316. Ms. Gresham testified that the special education classes was in the basement, towards the far end of the school. See Lemon-Gresham testimony, 6/8/2017, Tr. 168.

317. Ms. Gresham remembered that Mr. Roland was a student of hers at about age 10-11 because of his very bad hygiene. See Lemon-Gresham testimony, 6/8/2017, Tr. 175-176.

318. Ms. Gresham testified that when Mr. Roland was a student of hers, he had other deficits than emotional disturbance, including that he could not read. See Lemon-Gresham testimony, 6/8/2017, Tr. 188-189.

319. Mr. Roland took a Test of Adult Basic Education (TABE) on 9/7/01. See Def. Ex. 15e at 2-3. On this TABE, Mr. Roland scored at a grade equivalent of 3.5 for Reading, 3.3 for Applied Mathematics, 3.6 for Total Mathematics, 2.2 for Language, and 0.3 for Spelling. He misspelled his own last name on the test form. See Def. Ex. 15e at 2-3.

320. Ms. Bohm testified when looking at Mr. Roland's TABE that misspelling his name was "typical of Mr. Roland." See Bohm direct, 6/8/17, Tr. 12.

321. Mr. Roland's TABE scores are "letting us know at that time that he had very limited attainment of academic skills, particularly with regard to reading. It wasn't the case until he was around that age that he finally learned to read." See Dr. Hunter direct, 6/6/17, Tr. 184. See also Greenspan direct, 6/12/17, Tr. 103.

322. In March of 1999, Mr. Roland took the NJ Grade 8 Proficiency Assessment Individual Student Report in. He was 14 years old. He scored a 142, "Partially Proficient," in Language Arts Literacy, and a 150, "Partially Proficient," in Mathematics. Notably, there are only three categories of score on this test: "Partially Proficient (a score below 200); Proficient (a score between 200 and 250), and Advanced Proficient (a score above 250). See Def. Ex. 15e at 8. See also Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 8-9.

323. Ms. Bohm testified that Mr. Roland obtained these scores after she had been working with him for some time, and the scores reflect what she saw when he "first came in. Still extremely limited." See Bohm direct, 6/8/17, Tr. 17.

324. In October of 2001, Mr. Roland took the NJ Grade 11 High School Proficiency Test. He did not pass the Reading or Writing sections. He passed the mathematics score by one point ("the range of scores is 100 to 500; the passing score is 300"). See Def. Ex. 15e at 9. See also Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 9.

325. Dr. Greenspan testified that he was surprised that at Sojourn High School Mr. Roland had received some As and Bs on his report cards, and that to allay these concerns he spoke over the phone with a teacher, Kamala Conway-Humphrey, one of Mr. Roland's teachers who appeared on Mr. Roland's report card at Sojourn High School.

326. Ms. Conway-Humphrey told Dr. Greenspan that "students were rewarded for making a minimal effort and showing respect to the teachers, by receiving good grades for sitting

in their seats and completing very simple (sometimes second or third grade tasks such as copying maps). Thus, according to Ms. Conway, the grades had no meaning and are in no way comparable to grades the students might have received had they been following more challenging age-appropriate curriculum. See Def. Ex. 15e at 4-7. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 9. See also Dr. Greenspan direct, 6/12/17, Tr. 103-104.

327. Ms. Bohm also testified that in 1998, 1999, and 2001, grades at Sojourn were based primarily on participation, completing tasks, and not on aptitude, and that "F" grades were not given out. See Bohm direct, 6/8/17, Tr. 31-35.

328. A Sojourn High School Report Card indicates that for the 2001-2002 school year, Mr. Roland was in Grade 9. Mr. Roland was 17 years old at the time. This indicates he was held back two grades. See Def. Ex. 15e at 1. See also Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 9.

329. An Individualized Education Plan from the Juvenile Justice Commission dated 4/12/2002, when Farad was seventeen years old, also provides evidence of deficits in the conceptual domain. See, generally, Def. Ex. 15b.

330. On a page from the IEP entitled "Present Levels of Educational Performance," the scores from a 12/18/2001 TABE test taken by Mr. Roland are reported: Reading grade level 4.4, Total Math level 3.6, Language level 2.6, Spelling level 4.7. See Def. Ex. 15b at internal page 5.

331. The IEP indicates that Mr. Roland "Reads below an 11th grade level/8th grade level," "Written language is below an 11th grade/8th grade level," "Math is below an 11th grade level/8th grade level." See Def. Ex. 15b at internal page 17.

332. The IEP indicates that Mr. Roland "is achieving significantly below grade level." See Def. Ex. 15b at internal page 16.

333. New Jersey Department of Corrections record also report TABE scores for Mr. Roland. In July 2005, when he is almost 21 years old, Mr. Roland scored a 6.8 grade equivalent in Reading, a 6.4 GE in Math Comp, a 2.3 GE in Applied Math, a 2.4 GE in Language, a 24.1 GE in Spelling, and a 4.2 GE in Total Math. In August 2006, when Mr. Roland is 22 years old, Mr. Roland scored a 7.6 GE in Reading, a 5.0 GE in Math Comp, a 5.4 GE in Applied Math, a 2.3 GE in Language, a .0 GE in Spelling, and a 5.2 GE in Total Math. In March 2011, when he is 26 years old, and had been incarcerated for almost three years in a supported environment, Mr. Roland scored a 6.4 GE in Reading, a 10.0 GE in Math Comp, a 6.0 GE in Applied Math, a 3.5 GE in Language, a 12.5 GE in Spelling, and a 7.8 in Total Math. See Gov. Ex. 113 at 5.

334. Mr. Roland's relatively high 2011 spelling and math TABE scores are discrepant with his other TABE scores on the record, including the total battery scores for 2005, 2006, and 2011 between 4.1 and 6.0. See Gov. Ex. 113 at 5.

335. Mr. Roland's relatively high 2011 spelling TABE score is discrepant with his real-world ability to spell on several letters in evidence dated to the same year. See e.g. Def. Ex. 11n and 11o.

336. Isolated examples of strengths do not rule out deficits. AAIDD-11, Def. Ex. 39a at 47.. See also Dr. Olley Report, 5/22/17, Def. Ex. 53 at 2. See also Hunter direct, 6/6/17, Tr. 57-58. See also Dr. Greenspan Report, 4/28/17, Def. Ex. 45 at 13. ("ID is a condition that is defined by weaknesses rather than strengths. What this means is that there is a recognition that people with ID can have strengths, and that strengths can be mixed in with weaknesses.")

337. People with intellectual disability can learn and improve. See Hunter direct, 6/6/17, Tr. 43-45, 93.

338. Dr. Morgan did not investigate the meaning of the NJ DOC TABE scores, and affirmed that all TABE tests are administered in a group and that sometimes individuals cheat by helping each other with the test. See Morgan cross, 6/19/17, Tr. 99.

339. Mr. Roland's records corroborated what Mr. Roland's family told him with respect to his adaptive functioning. See Dr. Greenspan direct, 6/12/17, Tr. 105 -106.

340. While in the custody of the Juvenile Justice Commission in 2002, Mr. Roland was given a substance abuse assessment by Ms. Lynn Gavan, including a screening instrument and an interview. See Def. Ex. 9a at 84-86.

341. Ms. Gavan noted in her "Interviewer's Impression" that he seemed "cooperative with the interview process" and "appeared somewhat cognitively limited." See Def. Ex. 9a at 85.

342. In 2002, while in the custody of the Juvenile Justice Commission, Mr. Roland was administered a Kaufman Brief Intelligence Test by Dr. Farber, a psychology consultant, and received a Composite IQ score of 70, plus or minus 7, a Vocabulary IQ score of 75, plus or minus 8, and a Matrices IQ score of 69, plus or minus 9. See Def. Ex. 9a at 58.

343. Dr. Greenspan noted that the low KBIT score was evidence of deficits in the conceptual domain. See Greenspan direct, 6/12/17, Tr. 105.

344. Dr. Farber noted that Mr. Roland was "cooperative with this interviewer and this interview process." See Def. Ex. 9a at 59.

345. Dr. Farber noted that the "Evaluation reveals a young man who has very poor judgement and little insight into his behaviors." See Def. Ex. 9a at 59.

346. Dr. Hunter testified that Dr. Farber's notes on Mr. Roland show a profile "highly reflective of the conceptual difficulties that are adaptive behavior, that are concerned with making diagnosis" and that Dr. Farber notes "difficulty with regulating his emotions, and in

terms of his behavior he is often seen to be impulsive. That he can be overwhelmed by the emotions that he experiences. These impact very significantly his capacity to problem solve, to understand in the moment what the consequences of his actions may be, to plan ahead. These are all things that we see very commonly in individuals with intellectual disability at the mild level. We definitely have to recognize the oppositional defiant disorder is a description of behavior. That is how the diagnosis is made. It didn't talking about potential etiology. It is a very common co occurring challenge in individuals with intellectual disability." See Def. Ex. 9a at 59. See Hunter direct, 6/7/17, Tr. 36.

347. Dr. Farber checked boxes indicating "average" level, "average" estimate of potential, and "no learning disability indicated." See Def. Ex. 9a at 59. However, on another document in the same records, Dr. Farber indicated that Mr. Roland had "low average intelligence." See Def. 9a at 99.

348. Dr. Hunter testified that Dr. Farber's checks on "average" level, estimate of potential, and suspected deficits "[seem] inconsistent with both the record that is available with regard to Mr. Roland and his educational history. It also is inconsistent with the profiling scores he obtained on the K ban." See Dr. Hunter direct, 6/7/17, Tr. 37.

349. With respect to Dr. Farber's comment that the KBIT results are "likely indicative of limited schooling rather than actual cognitive functioning," Dr. Hunter testified that "This is not a profile description I would agree with based on my own assessment." See Dr. Hunter direct, 6/7/17, Tr. 39.

350. Dr. Hunter based this disagreement on the similarity of Mr. Roland's IQ scores across time, the fact that environmental factors "are components that exacerbate what is a

vulnerability to low functions and they can perpetuate a greater challenge as a result," and his knowledge of Mr. Roland's history. See Dr. Hunter direct, 6/7/17, Tr. 38 -39.

351. Ms. Bohm also affirmed that, from what she saw when she knew Mr. Roland, her opinion was that Mr. Roland had more deficits than could be explained by limited schooling. See Bohm direct, Tr. 43.

352. Captain Michael Thomas knew Mr. Roland when Mr. Roland was in the custody of the Essex County Youth Center in 1998 and 2001, where Captain Thomas worked. See, generally, Thomas testimony, 6/8/17, Tr. 64-91.

353. Captain Thomas testified that he remembered Mr. Roland because of when Mr. Roland would cry and staff would have to control him, and because Mr. Roland gave Captain Thomas a nickname that stuck to the present day, "Tom Tom." See Thomas redirect, 6/8/17, Tr. 89-90.

354. In his testimony Captain Michael Thomas affirmed that Farad Roland was "slower" than other residents, and elaborated: "Basically I have, you have to talk to him on numerous occasions. I have to talk to him more than the other kids, and what I find sometime when you are talking to him, he go to you like he is listening, and he then goes back and you see him again, same thing again. You have to be talking to him repeatedly, like he seems to understand what you are saying, but then he reacts differently. We have that many, we hardly have that type of behavior coming from the other residents." See Thomas direct, 6/8/17, Tr. 79.

355. Ms. Kathleen Bohm knew Mr. Roland when Mr. Roland was a student at Sojourn High School in 1998-2001, where Ms. Bohm worked. See, generally, Bohm testimony, 6/8/17, Tr. 7-63.

366. Ms. Bohm remembered Mr. Roland because he was in her first group of students. See Bohm direct, 6/8/17, Tr. 10.

377. Mr. Roland could not read and write when Ms. Bohm met Mr. Roland in 1998, when he was 14 years old. See Bohm direct, 6/8/17, Tr. 26.

388. Ms. Bohm worked "one on one" with Mr. Roland "because of his skill level." See Bohm direct, 6/8/17, Tr. 14.

399. Mr. Roland had "extremely limited skill sets" and "didn't have any skill set in reading, writing and math that I could ascertain." See Bohm direct, 6/8/17, Tr. 13.

400. Mr. Roland was "less skilled than the other students of his age in that particular grouping," the other children she worked with at Sojourn, and that compared to the other students "he was at the bottom." See Bohm direct, 6/8/17, Tr. 18 and Tr. 41.

401. Mr. Roland "would have a hard – an extremely hard time doing anything that was grade or age effective of him. He was more a third grader at 8, is 8 years old. So on this test I have a student I am with a student who has skills of an eight year old. His thought process if he read or trying to work with that was that of an eight year old." See Bohm direct, 6/8/17, Tr. 42.

402. Mr. Roland's way of learning "was do it again, do it again, do it again. The more you repeat it, the more he did it, the more he was able to comprehend it." See Bohm direct, 6/8/17, Tr. 40.

403. "In Farad's case, his attention is short, I will be honest which, that I remember." See Bohm direct, 6/8/17, Tr. 40.

404. Ms. Gresham testified that at age 10-11 Mr. Roland could not read. See Lemon-Gresham testimony, 6/8/17, Tr. 176.

405. Krystal Taylor reported that she had to count money for Mr. Roland, and that the local store keeper knew he could short-change him. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 20.

406. Dr. Greenspan noted that during his interview of Mr. Roland, Mr. Roland did not the value of a quarter. He believed it was a dollar. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 25.

407. Amin Roland commented that Mr. Roland had a "very poor understanding of money." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 19.

408. Kaia Macon, who lived with him when he was 23 years old, stated to Dr. Greenspan that Mr. Roland's "writing was very poor. He wrote the way you would sound out something, 'perpus' for purpose." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 21.

409. Kaia Macon told Dr. Greenspan that Mr. Roland "did not even know how to spell his own middle name. Their son, Zakai, was supposed to be named after his middle name. Farad was unable to navigate getting his own birth certificate, so Kaia had retrieved it. When she saw his birth certificate, she saw that his middle name was spelled 'Zakee.'" See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 21.

410. Jeanette Carter commented to Dr. Greenspan that Mr. Roland "can read road signs but not the words." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 18.

411. Jovan Gardner informed Dr. Greenspan that when she knew Mr. Roland as an older teenager, he could not read. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 20.

412. Krystal Taylor also informed Dr. Greenspan that Mr. Roland could not read well into his teenage years. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 20.

413. Habeeb Robinson noted to Dr. Greenspan that Mr. Roland had to bring the empty wrappers to the store in order to get the correct item because he could not read. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 23.

414. Krystal Taylor also noted that Mr. Roland had a difficult time following long conversations. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 20.

415. Habeeb Robinson told Dr. Greenspan that Mr. Roland "had difficulty sustaining concentration. He changed the topic often, out of the blue, because he wasn't following the conversation." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 23.

5. Social Domain

416. The social skills domain of adaptive functioning involves interpersonal skills, social responsibility, self-esteem, gullibility, naivete (wariness), follows rules/obeys laws, avoids being victimized, and social problem solving. See AAIDD-11 at 44.

417. For the mild range of intellectual disability, deficits in the social domain are marked by features including: "[c]ompared with typically developing age-mates, the individual is immature in social interactions. For example, there may be difficulty in accurately perceiving peers' social cues. Communication, conversation, and language are more concrete or immature than expected for age. There may be difficulties regulating emotion and behavior in age-appropriate fashion; these difficulties are noticed by peers in social situations. There is limited understanding of risk in social situations; social judgment is immature for age, and the person is at risk of being manipulated by others (gullibility)." See DSM-5 at 34.

418. Deficits in the moderate range are marked by "differences from peers in social and communicative behavior across development. Spoken language is typically a primary tool for social communication but is much less complex than that of peers. Capacity for relationships

is evident in ties to family and friends, and the individual may have successful friendships across life and sometimes romantic relations in adulthood. However, individuals may not perceive or interpret social cues accurately. Social judgment and decision-making abilities are limited, and caretakers must assist the person with life decisions. Friendships with typically developing peers are often affected by communication or social limitations. Significant social and communicative support is needed in work settings for success." See DSM-5 at 35.

419. For each rater, the ABDS administered by Dr. Greenspan indicated deficits in the social domain for Farad Roland. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 16-18.

420. While Dr. Greenspan committed scoring errors on the ABDS, correcting these errors did not change the finding that Mr. Roland was impaired in the social domain per each rater's responses. See Def. Ex. 50.

421. Additionally, the detailed descriptions of behavior and qualitative information, aside from the scores on the ABDS, provide further evidence of deficits in the social domain. It is appropriate and important to consider the history in addition to the scores, and to use "multiple respondents and multiple sources of converging data. Relevant archival data may include medical evaluations, school records, prior psychoeducational evaluations, Social Security Administration records, employment history, and family history." See AAIDD-11, Def. Ex. 39a at 50.

422. Kaia Macon described Mr. Roland to Dr. Greenspan as "gullible, very gullible." See Dr. Greenspan 4/27/17 Report, Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 18.

423. Jeanette Carter also told Dr. Greenspan that Mr. Roland could not tell if someone was using him. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 19.

424. Amin Roland told Dr. Greenspan that Mr. Roland "did not understand subtle cues, body language, or implications. He might understand teasing if it was direct, but he sometimes asked Amin to explain what someone meant. Conversation with Farad had to be straightforward." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 21-22.

425. Corroborating Amin Roland's statement that Mr. Roland did not understand "subtle cues, body language, or implications," Captain Thomas testified about a time Mr. Roland cried when he told him not to get to close when talking. Mr. Roland would forget and do this again. See Thomas redirect, 6/8/17, Tr. 68-69, 90-91.

426. "Amin described being able to talk his way out of difficult situations; whereas Farad's responses were basic: defend himself or avoid people. Farad did not possess a range of strategies to navigate complex situations." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 23.

427. Habeeb Robinson told Dr. Greenspan that in the neighborhood, children would tell Mr. Roland's uncle that "Farad did things he didn't do (like stealing a bicycle) just so they could hear the beatings," and that Mr. Roland was made fun of "because he was slow." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 23.

428. Habeeb Robinson also told Dr. Greenspan he himself had taken blamed things on Mr. Roland that he had not done. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 23.

429. Captain Thomas also testified that Mr. Roland's peers at Essex County Youth House in 1998 and 2001 were able to frequently take advantage of him, to the extent that they would call him "stunt dummy." When he was blamed for things he did not do Mr. Roland would cry. Mr. Roland stood out to Captain Thomas because of the repeated times people used him. Despite Captain Thomas's repeated advice, Mr. Roland was still taken advantage of. See Thomas direct, 6/8/17, Tr. 70-71, 77, 84, 87-88.

430. Jeanette Carter testified that Mr. Roland did not have many friends as a child and that children would tease him about his hygiene and call him stupid. See Carter direct, 6/9/17, Tr. 131-132.

431. A 1999 Probationer Report from Green Residential Group Center stated that Mr. Roland's "peers have focused on problem areas concerning his unwillingness to take in constructive criticism without hurt feelings. He is also a follower and tends to attempt to impress others by feeding into negative behavior." See Def. Ex. 9a at 33.

432. While in the custody of the Juvenile Justice Commission, Mr. Roland frequently failed to follow simple rules. Dr. Greenspan wrote in his report that it is "worth noting that he had difficulty following simple rules, even in a structured setting." See Def. Ex. 9a at 118, 119, 134, 140, 167. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 10.

433. Mr. Roland's replies to the hypothetical scenarios in Dr. Greenspan's interview with him provided additional but not necessary information about Mr. Roland's deficits in the social domain. See Dr. Greenspan direct, 6/13/17, Tr. 26-27. Also see Dr. Greenspan Declaration, 5/10/17, Def. Ex. 49, 4-5.

434. The questions he posed to Mr. Roland during the structured interview were one small part of his assessment, were not consequential to his assessment, yet were grounded in an understanding of the limitations of adaptive behavior instruments.

> My use of the CSQ should be considered within the context of a multi-method attempt to understand Farad Roland's adaptive functioning strengths and limitations. Such a multi-method approach is very much the product of reliable principles and methods. The use of a structured interview (which is the method solely used by psychiatrists when they testify) is perfectly reasonable and well within the bounds of accepted clinical and diagnostic practice. Everything I have done in this evaluation is based on a full consideration of the facts of Mr. Roland's competencies and limitations of functioning in the world. It is also

> grounded in a deep understanding of the nature of ID and the nature of adaptive functioning (which is based, as noted in both DSM5 and AAIDD manuals, on a tripartite model which I proposed over two decades ago). The CSQ, along with the other sources of information used by me, ... provide the court with a full and deep understanding of Mr. Roland, and the degree to which his life story is congruent with that of a person who may have ID. Ultimately, such a multifaceted pursuit of the truth is what the clinical standards for determining intellectual disability require. The government and its experts seem to be saying that "knowledge" is meaningful or valid only if you can attach a number to it…. But the clinical standard actually invites into more sources, as well as interpretation of the gathered evidence, not a simple recitation of scores. None of the instruments on the government's list, including the Vineland-3 used by Dr. Morgan, address social judgment, let alone judgment in complex and ambiguous situations. That the Vineland-3 does not address this area does not mean that social judgment, risk unawareness, or gullibility is not relevant to the determination of intellectual disability, or is not evidence of an adaptive behavior deficit.

Greenspan *Daubert* Declaration at 12.

435. Mr. Roland's responses on the CSQ were concrete, showed risk unawareness and poor judgment. See Dr. Greenspan direct, 6/13/17 at Tr. 26-30.

436. Dr. Greenspan interpreted the CSQ qualitatively, and in order to help him understand Mr. Roland's adaptive reasoning. Dr. Greenspan direct, 6/13/17 at 32-33.

6. Practical Domain

437. The practical skills domain of adaptive functioning for intellectual disability includes deficits in activities of daily living (personal care), occupational skills, use of money, safety, healthcare, travel/transportation, schedules/ routines, and use of the telephone. AAIDD-11 at 44.

438. Deficits in social domain for the mild range of intellectual disability are described in the DSM-5 :"[t]he individual may function age-appropriately in personal care. Individuals need some support with complex daily living tasks in comparison to peers. In adulthood,

supports typically involve grocery shopping, transportation, home and child-care organizing, nutritious food preparation, and banking and money management. Recreational skills resemble those of age-mates, although judgment related to well-being and organization around recreation requires support. In adulthood, competitive employment is often seen in jobs that do not emphasize conceptual skills. Individuals generally need support to make healthcare decisions and legal decisions, and to learn to perform a skilled vocation competently. Support is typically needed to raise a family." DSM-5 at 34.

439. Deficits in social domain for the moderate range of intellectual disability are described as: "[t]he individual can care for personal needs involving eating, dressing, elimination, and hygiene as an adult, although an extended period of teaching and time is needed for the individual to become independent in these areas, and reminders may be needed. Similarly, participation in all household tasks can be achieved by adulthood, although an extended period of teaching is needed, and ongoing supports will typically occur for adult-level performance. Independent employment in jobs that require limited conceptual and communication skills can be achieved, but considerable support from co-workers, supervisors, and others is needed to manage social expectations, job complexities, and ancillary responsibilities such as scheduling, transportation, health benefits, and money management. A variety of recreational skills can be developed. These typically require additional supports and learning opportunities over an extended period of time. Maladaptive behavior is present in a significant minority and causes social problems." See DSM-5 at 35.

440. The ABDS administered by Dr. Greenspan to Amin Roland indicated deficits in the practical domain for Farad Roland. See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 16-18.

441. While Dr. Greenspan committed scoring errors on the ABDS, correcting these errors does not change Amin Roland's ABDS score of Farad Roland correcting these errors did not change the finding that Mr. Roland was impaired in the Practical domain score. See Dr. Greenspan ABDS Report, 6/5/17, Def. Ex. 50.

442. Kaia Macon informed Dr. Greenspan that Mr. Roland "was not independent." "[H]e did not know how to make food. He made only one thing, and it was 'jail food' (noodles in the microwave). He did not know how to fix anything in the house, or operate a smart phone." He "was a horrible driver, and often damaged the car he was driving. When he drove, if he was going to make a turn, he took his eyes completely off the road and turned his head all the way around." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 21.

443. Amin Roland also noted that Farad Roland was a terrible driver. "Many times Amin lent Farad his car, Farad brought the car back with large dents, scratches, sometimes even the mirrors torn off."

444. Amin Roland also noted to Dr. Greenspan that "Farad could not cook. He made one dish—noodles with tuna and mayonnaise." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 22.

445. Amin Roland told Dr. Greenspan that Farad Roland had a "poor sense of direction. Despite having been to Amin's house repeatedly, he still drove past it. Farad did not drive long distances by himself. Their sister"—Sarita Roland—"lived in South Jersey; Farad would not be able to drive there by himself." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 22.

446. Similarly, a 2001 intake form from the Juvenile Justice Commission indicates that Mr. Roland "never went to probation because he didn't know where it was located." See Def. Ex. 9a at 50.

447. Habeeb Robinson reported to Dr. Greenspan that he and Mr. Roland used to work together bagging groceries at the store, but that "He had to help Farad so that he didn't put breakable items on the bottom. When they did yard work, Habeeb had to supervise him." Habeeb also noted that "if you gave" Mr. Roland "a basketball, he would have no idea what to do; did not understand scoring or rules of the game." See Dr. Greenspan Report, 4/27/17, Def. Ex. 45 at 18 and 23.

448. Amin Roland, Jeanette Carter, and Krystal Carter all told Dr. Greenspan that Mr. Roland had poor hygiene. See Def. Ex. 20 and 22.

449. Captain Thomas and Ms. Lemon-Gresham also both testified about Mr. Roland's poor hygiene as a juvenile. Captain Thomas said Mr. Roland had problems with brushing his teeth. Ms. Lemon-Gresham specifically remembered Mr. Roland because of his poor hygiene. See Thomas direct, 6/8/17, Tr. 74, 77. See Lemon-Gresham direct, 6/8/17, Tr. 175, 177.

450. Corroborating the testimony of Captain Thomas about Mr. Roland's hygiene, medical records from NJ Department of Corrections state that in 2009 had to have eight teeth extracted. See Def. Ex. 14d, p.76.

451. Jeanette Carter testified that when young, Mr. Roland had difficulty operating video games as compared to her son, Todd Carter. See Carter direct, 6/9/17, Tr. 108-109.

452. Jeanette Carter testified that Mr. Roland operated the microwave by pressing the same button repeatedly. See Carter direct, 6/9/17, Tr. 134.

453. In 1999, a probationer report from Green Residential Group Center noted that in the work experience phase of the program, Mr. Roland "needs constant supervision to complete the task." See Def. Ex. 9a at 33-34.

454. A JJC intake form indicated that "Farad reports that he broke his left arm in 6/01 and wore a cast for approximately a month, taking it off himself." See Def. Ex. 9a at 50.

E. Criterion 3: Onset of intellectual and adaptive deficits during the developmental period.

455. "The developmental onset prong is intended to establish if the individual today being considered for possible ID, has antecedents of deficient functioning that can be traced back to the childhood or adolescence period. It is intended to differentiate between people who truly have ID from people who were functioning in an average or above average fashion but [] then regressed in adulthood due to an accident or illness." Greenspan Expert Report, dated, April 27, 2017, at 27.

456. As previously discussed, the DSM-5 requires evidence of the "onset" of intellectual disability to occur "during the developmental period," DSM-5 at 33, and the AAIDD describes the same as a "originat[ing] before age 18," AAIDD User's Guide at 1. By either wording, evidence of the onset of Mr. Roland's intellectual disability is present in the record.

1. The Juvenile Justice Commission

457. Records of the Juvenile Justice Commission contain evidence of the onset of intellectual disability before Mr. Roland turned 18 years old, see, generally, Def. Ex. 9a, 15e, as does the lay witness testimony of Captain Michael Thomas and Kathleen Bohm, both of which worked for agencies within the umbrella of the Juvenile Justice Commission, see, generally, Thomas testimony, dated, June 8, 2017; Bohm testimony, dated, June 9, 2017.

458. Captain Thomas worked at the Essex City Youth Center for 23 years. See Cpt. Thomas direct, 6/8/17 Tr. 64.

459. 8,000 youth passed through Youth Detention Center in his 23 years, see Cpt. Thomas direct, 6/8/17 Tr. 66, and Mr. Roland nonetheless stood out in Captain Thomas's mind because of the repeated times that people took advantage of Mr. Roland was he was in Captain Thomas's care, See Cpt. Thomas direct, 6/8/17 Tr. 89.

460. When contacted by defense team, Captain Thomas immediately remembered Farad Roland. See Cpt. Thomas direct, 6/8/17 Tr. 66.

461. In 1998, there were 12-14 residents in Mr. Roland's unit and Captain Thomas had the opportunity to observe Mr. Roland every day on a daily basis. See Cpt. Thomas direct, 6/8/17 Tr. 67-68.

462. The other residents realized that Mr. Roland could be taken advantage of and that they could get him to do anything. See Cpt. Thomas direct, 6/8/17 Tr. 70.

463. Most of the residents would pick on Mr. Roland and call him a "stunt dummy." Cpt. Thomas direct, 6/8/17 Tr. 71.

464. The other residents would use Mr. Roland to get Mr. Roland in trouble. See Cpt. Thomas direct, 6/8/17 Tr. 71.

465. There was a problem everyday with Mr. Roland's cell decorum. See Cpt. Thomas direct, 6/8/17 Tr. 73; see also Cpt. Thomas direct, 6/8/17 Tr. 85 (Mr. Roland's problems with cell decorum was worse than others).

466. Mr. Roland could not follow instructions properly, and had difficulty with simple tasks such as drying the sink and folding towels. See Cpt. Thomas direct, 6/8/17 Tr. 74.

467. Mr. Roland had personal hygiene problems and had to be told to brush his teeth and wash his face. See Cpt. Thomas direct, 6/8/17 Tr. 74.

468. Mr. Roland did not take care of his hair. See Cpt. Thomas direct, 6/8/17 Tr. 75.

469. Captain Thomas spoken to Mr. Roland on multiple occasions about not being used by the other residents, but the problem persisted. See Cpt. Thomas direct, 6/8/17 Tr. 75.

470. In 2001, Mr. Roland returned to the Essex County Youth Detention Center, at which point Caption Thomas observed that there had not been much change in his hygiene or behavior since he had observed Mr. Thomas three years earlier. See Cpt. Thomas direct, 6/8/17 Tr. 76-77.

471. Even in 2001, when Mr. Roland was 17 years old, the other residents continued to refer to him as a "stunt dummy." Cpt. Thomas direct, 6/8/17 Tr. 77.

472. Mr. Roland was slower compared to the other residents. See Cpt. Thomas direct, 6/8/17 Tr. 77 ("I have to talk to him on numerous occasions. You have to talk to him repeatedly, like he seems to understand what you are saying, but then he reacts differently…. [W]e hardly have that type of behavior coming from the other residents.").

473. Mr. Roland would cry when other residents blamed him for something that he did not due. See Cpt. Thomas direct, 6/8/17 Tr. 84.

474. On March 24, 1999, when Mr. Roland was 14 years old, he entered the Green Residential Group Center as a condition of juvenile probation. See Def. Ex. 9a at 33.

475. Prior to being released from the Green Residential Group Center a final probationer report was issued, dated, November 2, 1999. See Exhibit 9a at 33-34.

476. Mr. Roland was 15 years old at the time the report was issued.

477. The report explained that Mr. Roland "[d]uring the work experience phase of the program" he "needs constant supervision in order to complete the task," and in group sessions "his peers have focused on problem areas concerning his unwillingness to take in constructive criticism without hurt feeling." Exhibit 9a at 33.

478. The report also noted that Mr. Roland was "a follower and needs to attempt to impress others by feeding into negative behavior." Exhibit 9a at 33.

479. While each of the areas identified in his final probationer report could be indicative of behavioral issues, they are also indications of intellectual disability. See Dr. Hunter direct, 6/7/17 Tr. 36-37 (discussing how behavior issues and intellectual disability can be comorbid).

480. In a transcript, dated, January 2, 2002, of the Sojourn High School-Essex County Juvenile Detention Center, the record reflects that on September 7, 2001, Mr. Roland was administered a TABE test wherein he was determined to have an overall grade equivalency of 3.1, with a 3.5 for reading, 3.6 for math, 2.2 for language, and 0.3 for spelling. See Def. Ex. 15e at 2-3; see also Bohm direct, 6/8/17 Tr. 36-37.

481. Mr. Roland was 17 years old and in 9th grade when he was administered the TABE test on September 7, 2001. See Def. Ex. 15e at 1.

482. Mr. Roland's instructor at Sojourn detailed multiple examples of his poor cognitive abilities. See, generally, Bohm direct, 6/8/17 Tr. 7-55.

483. For example, Mr. Roland's "vocabulary was limited," "we would kind of go back and forth as to how to clarify what it was we were looking for and what he needed to do to complete the assignments," his scores were "extremely limited" on an eighth grade proficiency assessment test, his comprehension in comparison to his peers were "less skilled than the other

students of his age in that particular grouping," he could not read or write when Bohm first met him, simple tasks were complicated for him to grasp, his attention span was short, "he was at the bottom" compared to the other students, "I call him extremely limited reading[,] writing[,]" "an extremely hard time doing anything that was grade or grade effective of him, and he had more deficits than the other students in his class and "was one of the ones that … had the more [sic] deficits" of all of the students Bohm taught. Bohm direct, 6/8/17 Tr. 13-14, 16-18, 25-26, 36-42.

484. On or about January 2, 2002, after having returned to the custody of the Juvenile Justice Commission, Mr. Roland was administered a battery of testing including the Kaufman Brief Intelligence Test ("K-BIT"). See Def. Ex. 9a at 55, 58; see also Dr. Hunter direct, 6/6/17 Tr. 190-191.

485. Mr. Roland was 17 years old at the time he completed the K-BIT. See Def. Ex. 9a at 55, 58, 59.

486. Mr. Roland's K-BIT results were as follows: Composite IQ 70 +/- 7, Vocabulary IQ 75 +/- 8, Matrices IQ 69 +/1. See Def. Ex. 9a at 58; see also Dr. Hunter direct, 6/6/17 Tr. 190 (explaining that Mr. Roland's Composite IQ of 70 is significant because it "give[s] me information that at that time he had been given, even given all of the circumstances that were at play with him, he was showing challenges … consistent with the ones that I obtained").

487. Dr. Farber, the doctor that administered the K-BIT test, noted that when taking the test Mr. Roland was "cooperative with this interviewer and the interview process," Def. Ex. 9a at 59, thereby indicating that Mr. Roland was not feigning when he took the test.

488. Although, notwithstanding the results of the K-BIT test, Dr. Farber does not diagnose Mr. Roland as being intellectually disabled, she nonetheless makes a record of evidence supporting the onset of such diagnosis. See, generally, Def. Ex. 9a at 55-59; see also Dr. Hunter

direct, 6/7/17 Tr. 36-37 (examining Dr. Farber's report, "He is noting there is difficulty with regulating his emotions, and in terms of his behavior he is often seen to be impulsive. That he can be overwhelmed by the emotions that he experiences. These impact very significantly his capacity to problem solve, to understand in the moment what the consequences of his actions may be, to plan ahead. These are all things that we see very commonly in individuals with intellectual disability at the mild level. We definitely have to recognize the oppositional defiant disorder is a description of behavior. That is how the diagnosis is made. It didn't talk[] about potential etiology. It is a very common co[-]occurring challenge in individuals with intellectual disability…. These [would] be highly reflective of the conceptual difficulties that are adaptive behavior, that are concerned with making diagnosis.").

489. On January 3, 2002, Mr. Roland was "referred for a comprehensive substance abuse assessment," including a "Substance Abuse Subtle Screening Inventory" ("SASSI-A2"). Def. Ex. 9a at 84.

490. Though utilized at the time in the context of a substance abuse evaluation rather than an intellectual disability evaluation, the SASSI-A2 screening test nonetheless revealed risk factors relevant to both, as well as evidence of the onset of intellectual disability. See Def. Ex. 9a at 84-86.

491. For example, in the results of his SASSI-A2 screening test: "The FRISK score of three suggests that this youth comes from an environment in which drugs are permitted rather than discouraged…. The OAT score of five indicates that while this youth can recognize problems in his life, he may not have the ability to identify the cause of these problems. The SAT score of two suggests a lack of insight and awareness…. The COR score of ten indicates a high risk of Acting Out behavior when combined with inadequate adult supervision, poor

impulse control and poor anger management techniques." Def. Ex. 9a at 84-85; see also Dr. Hunter direct, 6/7/17 Tr. 39 (environmental factors "without a doubt" impact IQ because "[t]hey are components that exacerbate what is a vulnerability to low functions and they can perpetuate a greater challenge as a result").

492. Additionally, the interviewer's impression of Mr. Roland indicated that "[h]e was cooperative with the interview process and settled down to make good eye contact during the interview." Def. Ex. 9a at 85.

493. Mr. Roland also "appeared to be somewhat cognitively limited which may account for the high defensive score in the SASSI-A2 results. Many of the questions had to be explained to [Mr. Roland]." Def. Ex. 9a at 85.

494. Indeed, the interviewer noted a second time that Mr. Roland "appears to have poor insight and somewhat limited cognitive ability." Def. Ex. 9a at 85.

495. Notably, nothing in the records of the Juvenile Justice Commission (Def. Ex. 9a), suggest that Mr. Roland possessed a secondary motive or secondary gain with respect to his conduct.

496. Moreover, all of the records contained in the files of the Juvenile Justice Commission (e.g., the Sojourn high school records, the grade proficiency assessments, and K-BIT scores) "provide[a historical record of ongoing challenges from very early on that continued throughout adolescence, with effective learning. It tells [Dr. Hunter, and in turn this Court] that in many was very likely insufficient support was never provided[. I]t provides the foundation for understanding the interplay between cognitive development, how the brain is organizing and becoming effective, and the impact of the traumas and the absences and the losses, and the failures to provide, and how they ultimately exacerbated risks that were already at play. Leading

to know, if we move to thinking about the fact that ID is diagnosed, not based on etiology, but based on a profile, a presentation, that he meets the criteria. But it supports through prong three, through a very detailed set of information, the set of disruption, and deficits that were at play that were sustained across time." Dr. Hunter, direct (in response to this Court's question), 6/6/17 Tr. 190-191.

2. The Social Security Administration

497. The Social Security Administration determined that Mr. Roland was intellectually disabled when he was 14 years old. See Def. Ex. 17 at SSA.0007.

498. The Social Security Administration's determination is significant because "[i]t is a part of the history. It is part of what someone would take in with regards to history. Previously classified as having intellectual impairment, yes." Dr. Bigler direct, 6/23/17 Tr. 154 (also emphasizing importance of "a Social Security determination of mental retardation" prior to the present case, "when he is in his childhood years").

499. The Social Security Administration's determination that Mr. Roland was intellectually disabled when he was 14 years old is also "an indication that through the standardized approach to understanding what were challenges for him, that he was identified as meeting criteria for intellectual disability at that time." Dr. Hunter direct, 6/6/17 Tr. 183.

500. Mr. Roland was born on August 18, 1984. See Bruckner direct, 6/8/17 Tr. 107; see also, e.g., Def. Ex. 17 at SSA.0001.

501. In 1996, when Mr. Roland was 11 years old, the Social Security Administration determined that he was "learning disabled". See Bruckner direct, 6/8/17 Tr. 128-131; see also Def. Ex. 17 at SSA.0008.

502. Mr. Roland started receiving Supplemental Security Income ("SSI") benefit payments beginning on January 17, 1996 as a result of the Social Security Administration's determination that Mr. Roland was learning disabled. See Bruckner direct, 6/8/17 Tr. 108, 125, 130-134; see also Def. Ex. 17 at SSA.0005, SSA.0008.

503. Mr. Roland was not eligible for SSI payments while he was incarcerated nor when he was fugitive felon, but he was eligible to receive benefits when neither was the case. See Bruckner direct, 6/8/17 Tr. 134.

504. In 1999, when Mr. Roland was 14 years old, the Social Security Administration conducted a reevaluation of his determination, known as a "continuing disability review", at which point the Social Security Administration determined instead that he was "mentally retarded" ("MR", now referred to as "intellectually disabled" or "ID"). See Bruckner direct, 6/8/17 Tr. 95-96, 108-109; see also Def. Ex. 17 at SSA.0007.

505. During Mr. Roland's 1999 continuing disability review the decision regarding whether Mr. Roland was still disabled, and if so what disability would be the correct determination, was made "adjudicator" in conjunction with a "medical consultant". See Bruckner direct, 6/8/17 Tr. 98-101, Tr. 161-162.

506. The "basic process" begins with the adjudicator reviewing the record and requesting additional files if he or she believes necessary. "When the adjudicator thinks that we have enough information," he or she "sends it to" the medical consultant. The medical consultant "then review[s] all the evidence and … decides whether [he] can rate the claim, based on the information that is in the file or not." Dr. Huber cross (in response to the Court), 6/26/17 Tr. 31).

507. "One of the reasons why [the medical consultant] may not be able to rate [the claim] is that [they] don't have enough evidence." Dr. Huber cross (in response to the Court), 6/26/17 Tr. 32.

508. "[A]djudicators sometimes don't understand, or for other reasons, they don't think [more evidence] is necessary," but the medical examiner is the "final arbiter of that," and as such the medical examiner decides whether additional evidence is nonetheless necessary." Dr. Huber cross (in response to the Court), 6/26/17 Tr. 32.

509. It isn't until the medical consultant has all of the information that he or she believes necessary before a claim can be rated. See Dr. Huber cross (in response to the Court), 6/26/17 Tr. 32.

510. The medical consultant makes the final determination of changing a diagnosis from learning disabled to mentally retarded. See Dr. Huber cross (in response to the Court), 6/26/17 Tr. 33.

511. The adjudicator was Marilyn Stern and the medical consultant was Dr. Herman Huber. See Bruckner direct, 6/8/17 Tr. 143, 162; see also Def. Ex. 17 at SSA.0007; 6/9/17 Tr. 220 (defense counsel clarifying that the adjudicator's name was "Marilyn Stern", not "Margaret Stern" as had been misstated by Bruckner).

512. In this instance, the medical consultant, Dr. Huber, was a clinical psychologist. See Bruckner direct, 6/8/17 Tr. 113-114; Dr. Huber direct, 6/26/17 Tr. 18; see also Def. Ex. 17 at SSA.0007; Def. Ex. 90 (Dr. Huber's CV).

513. During Mr. Roland's 1999 continuing disability review, the SSA reviewed medical records. See Bruckner direct, 6/8/17 Tr. 117; see also Def. Ex. 17 at SSA.0007.

514. During Mr. Roland's 1999 continuing disability review, the SSA also reviewed the test results of test(s) administered by a "consultative examiner". See Bruckner direct, 6/8/17 Tr. 117; see also Def. Ex. 17 at SSA.0007.

515. A "consultative examiner" is an independent psychologist or medical doctor who is not employed by the Social Security Administration, but is hired to conduct specific tests requested by the Social Security Administration as part of its initial or continuing disability review. See Bruckner direct, 6/8/17 Tr. 120-121.

516. Although the record does not reflect which consultative examiner administered testing to Mr. Roland, the record does reflect that one or more tests were administered. See Bruckner direct, 6/8/17 Tr. 117; see also Def. Ex. 17 at SSA.0007.

517. Dr. Huber, the psychologist employed by the Social Security Administration and relied upon as a medical consultant during Mr. Roland's 1999 continuing disability review, had no independent recollection of conducting Mr. Roland's continuing disability review, however, Melissa Bruckner, the current Program Director of the Center for Disability and Program Support of the Social Security Administration, confirmed that Dr. Huber was the medical consultant, specifically the psychologist, who participated in Mr. Roland's continuing disability review. See Bruckner direct, 6/8/17 Tr. 92-93, 112-113, 143-144; Dr. Huber direct, 6/26/17 Tr. 18-20; see also Def. Ex. 17 at SSA.0007.

518. Dr. Huber testified that it was his practice, complying with the Social Security Administration's criteria, to thoroughly review all records before making a disability determination, and to request additional records and/or testing if the application was incomplete. See, e.g., Dr. Huber direct, 6/26/17 Tr. 20, 26-28; Dr. Huber cross (in response to the Court), 6/26/17 Tr. 30-32.

519. Dr. Huber testified that it was also his practice to request an IQ test for "nearly all" applicants suspected of having a potential intellectual disability. Dr. Huber direct, 6/26/17 Tr. 23.

520. According to Dr. Huber, IQ tests "are central to the evaluation if there is an allegation of intellectual disability or mental retardation, as it was called back then." Dr. Huber direct, 6/26/17 Tr. 23.

521. Dr. Huber would make a note of the IQ score and provide that score to the adjudicator. See Dr. Huber cross, 6/26/17 Tr. 42.

522. The only time when Dr. Huber would not request an IQ test was when "you have a claimant who is so disabled, so limited, that IQ testing isn't even possible. In that case you wouldn't require it because it could be done." Dr. Huber direct, 6/26/17 Tr. 24.

523. By "so limited that it is not possible" to administer an IQ test, Dr. Huber meant "a person who is nonverbal, extremely intellectually disabled, mentally retarded, that the instructions couldn't be understood, couldn't be complied with. Things of that nature. Just essentially not testable." Dr. Huber direct, 6/26/17 Tr. 24 (also explaining that those so limited as to not be testable are individuals on the extreme end of intellectual disability).

524. For "a case involving mild intellectual disability as opposed to that extreme end … IQ scores [would] be part of the determination" "Virtually all the time." Dr. Huber direct, 6/26/17 Tr. 24.

525. Besides an IQ score, the Social Security Administration's disability determination was also based upon adaptive functioning. See Dr. Huber direct, 6/26/17 Tr. 26-28.

526. In the case of "mild" intellectual disability, "[a]n IQ test by itself is not adequate" for the Social Security Administration to determine that an applicant is intellectually disabled. Dr. Huber cross (in response to the Court), 6/26/17 Tr. 37-38.

527. As a result, the Social Security Administration looks at IQ scores in conjunction with other sources of information, such as teacher evaluations, to corroborate the applicant's level of intellectual and adaptive functioning. See Dr. Huber cross (in response to the Court), 6/26/17 Tr. 37-39.

528. The Social Security Administration looks "to see what the IQ scores are currently. We are [also] looking to assess adaptive functioning … to see if that indicates that the child is still functioning with a learning disability, or is it more accurately labeled mental retardation." Dr. Huber direct, 6/26/17 Tr. 26.

529. The Social Security Administration is "trying to get an assessment of the child globally." Dr. Huber direct, 6/26/17 Tr. 26.

530. "Mental retardation is a function of IQ and also adaptive functioning." Dr. Huber direct, 6/26/17 Tr. 26.

531. The Social Security Administration is "looking at various contexts in which the child operates, school, home, outside of the home, to see whether the functioning is consistent in all the domains that the child functions in." Dr. Huber direct, 6/26/17 Tr. 26-27.

532. "[W]ith a diagnosis of mental retardation," the Social Security Administration is "looking at a child whose cognitive abilities are limited across the board, generally, in all spheres." Dr. Huber direct, 6/26/17 Tr. 27.

533. "[G]enerally," the Social Security Administration "tr[ies] to look at the whole picture, the whole child, and get a sense of functioning in all areas." Dr. Huber direct, 6/26/17 Tr. 28.

534. Dr. Huber testified that he would not diagnose an applicant as fitting the criteria for intellectual disability if he did not believe it to be the case after a thorough review of the applicant's records, and he would not change a diagnosis from learning disabled to intellectually disabled based purely on the word of the parents or guardians of the child applicant; a thorough "due diligence" is required. See Huber cross (in response to the Court), 6/26/17 Tr. 39.

535. Although most of Mr. Roland's Social Security Administration records were "purged" (i.e., destroyed) in the normal course of business due to the age of the file, the remaining records confirmed that Mr. Roland first received SSI payments based upon the SSA's determination that he was learning disabled, and then later received SSI payments based upon the SSA's re-determination that he was "mentally retarded" (i.e., intellectually disabled). See Bruckner direct, 6/8/17 Tr. 114, 134.

536. Notably, a determination of mental retardation was not necessary to receive SSI benefits in the first place. See Bruckner direct, 6/8/17 Tr. 134.

537. As such, because Mr. Roland began receiving SSI payments when he was 11 years old based upon a determination of learning disability, rather than intellectual disability, in 1999 there was no reason for Mr. Roland to feign or fake his responses to the IQ test that was administered to him during his continuing disability review. See Def. Ex. 17 at SSA.005, SSA.008.

538. For the same reasons, Mr. Roland possessed no secondary motive or secondary gain with respect to the SSA's 1999 continuing disability review and IQ testing. See, generally, Def. Ex. 17; Brucker testimony, dated, June 8, 2017; Dr. Huber testimony, dated June 26, 2017.

3. Defense Expert Reports on Criterion 3

539. In addition to the above, the expert reports of Dr. Steven Greenspan and Dr. Scott Hunter further support a finding that the onset of Mr. Roland's intellectual disability occurred during his developmental period, prior to his 18th birthday. See Report of Dr. Steven Greenspan, dated, April 27, 2017, at 27; Report of Dr. Scott Hunter, dated, April 28, 2017, at 17.

540. According to Dr. Greenspan's expert report:

> Despite the absence of many documents, there is very substantial evidence that Farad Roland meets prong three. These are noted as follows:
>
> - He was labelled "mentally retarded" by the Social Security Administration.
> - There is an intelligence (KBIT) test score in the ID range obtained when he was age 17, which is within the developmental period.
> - He was found eligible for special education during the primary grades, and retained this designation.
> - He was many grades behind his age-mates in academic achievement by a wide margin.
> - There are reports from family members that he was retained (made to repeat) at least one grade (Gigi and Amin) and Sojourn records show he was in the 9th grade when age 17, which suggests he was retained twice.
> - He could not self-regulate or abide the demands of a classroom setting when young or later.
> - Adaptive ratings, using target ages within the developmental period, are all quite low.
> - There are several neurodevelopmental risk factors in Farad's life history, including daily exposure to alcohol from his mother's drinking throughout pregnancy.

Dr. Greenspan Expert Report, April 27, 2017, at 27.

541. Similarly, according to Dr. Hunter's expert report:

> Mr. Roland's developmental history, as reviewed and discussed earlier in this report, and which addresses Criterion Three, is one that is substantial in its support for his identification as presenting with ID. Despite inadequate records in many domains, the available information highlights identification of ID ("mental retardation") following formal assessment by the Social Security Administration in 1995, when Mr. Roland was 11 years old.[4] He has reportedly shown a profile of behavioral and emotional challenges that have impeded learning, and demonstrated learning deficits at a sufficient level to warrant placement in special educational programming by the third grade. Academic skill development, despite a reported history of IEP implementation, has remained substantially poor through childhood and adolescence, with scores obtained regarding academic functioning at late adolescence consistent with below third grade level reading, written language, spelling, and arithmetic abilities. Despite efforts at building reading and writing skills as an adult, key decoding and math skills remain at this level, consistent with intellectual functioning scores. That these delays have been present since early childhood, and before the recording in the medical history of concussions, results together highlight a premorbid profile of neurodevelopmental disability, that has likely been exacerbated and challenged across time.

Dr. Hunter Expert Report, April 28, 2017, at 17.

[4] As previously discussed, Mr. Roland was determined to be "learning disabled" at age 11, and thereafter re-evaluated approximately three years later and determined to be "mentally retarded" (i.e., intellectually disabled) at age 14 in 1999. The records reflecting this correction were not disclosed by the Social Security Administration to the defense until after Dr. Hunter's report was produced. Dr. Hunter's testimony is consistent with the later-discovered evidence. This correction, however, makes no difference to this Court's findings. Regardless if Mr. Roland was determined to be intellectually disabled at age 11 or age 14, either age supports a finding Mr. Roland's intellectually disability originated during his developmental period. See DSM-5 at 33; AAIDD User's Guide at 1.

542. With so many indicators of early cognitive and adaptive deficiency during the developmental period, prong three is very clearly and definitively established. See Dr. Greenspan Expert Report, dated, April 27, 2017, at 28; see also discussion, throughout herein.

4. Additional Witnesses, Raters, and Interviewees Relevant to Criterion 3

543. Delores Gresham's testimony provided examples of the onset of intellectual disability during Mr. Roland's developmental period. See, generally, Gresham testimony, dated, June 9, 2017; see also Criterion 2, discussion, herein.

544. Jeannette "Gigi" Carter's testimony provided examples of the onset of intellectual disability during Mr. Roland's developmental period. See, generally, Carter testimony, dated, June 9, 2017; see also Dr. Greenspan Expert Report, dated, April 27, 2017, at 17-25; Criterion 2, discussion, herein.

545. Habeeb Robinson provided Dr. Greenspan with examples of the onset of intellectual disability during Mr. Roland's developmental period. See Dr. Greenspan Expert Report, dated, April 27, 2017, at 17-25; see also Criterion 2, discussion, herein.

546. Amin Roland provided Dr. Greenspan with examples of the onset of intellectual disability during Mr. Roland's developmental period. See Dr. Greenspan Expert Report, dated, April 27, 2017, at 17-25; see also Criterion 2, discussion, herein.

547. Krystal Carter, Gigi's daughter, provided examples of the onset of intellectual disability during Mr. Roland's developmental period. See Dr. Greenspan Expert Report, dated, April 27, 2017, at 20;[5] see also Criterion 2, discussion, herein.

[5] Krystal Carter had been on the defendant's witness list for the Atkins/Hall/Moore hearing, but was unable to be called due to scheduling difficulties.

548. Jovan Gardner provided examples of the onset of intellectual disability during Mr. Roland's developmental period. See Dr. Greenspan Expert Report, dated, April 27, 2017, at 20; see also Criterion 2, discussion, herein.

549. Joseph Holloway provided examples of the onset of intellectual disability during Mr. Roland's developmental period. See Dr. Greenspan Expert Report, April 27, 2017, at 21; see also Criterion 2, discussion, herein.

Credibility of Defense Experts

550. Dr. Hunter is an academic clinician and developmental clinical neuropsychologist. He is a professor at the University of Chicago and has been a faculty member for 18 years. He is now the Director of Neuropsychology and head of the Pediatric Neuropsychology Service for the University of Chicago Medicine and Comer Children's Hospital. He was offered and qualified by the Court as an expert in Intellectual Disability, developmental disabilities, and clinical neuropsychology. See Dr. Hunter direct, 6/6/17, Tr. 5-6, 19, and 21. See also Dr. Hunter Report, 4/28/17, Def. Ex. 40 at 2.

551. Dr. Hunter accepted and followed the clinical standard as set forth by the AAIDD and DSM-5. He accepted and followed the best practices with respect to the understanding the psychometrics of the IQ testing and the overall validity of the testing.

552. Dr. Hunter considered risk factors and Mr. Roland's life history in making his diagnosis.

553. Dr. Greenspan is an academic and leading expert in adaptive behavior and intellectual disability, and was offered and qualified by the Court as an expert in Intellectual Disability. He is one of the most cited authorities in the AAIDD and in the DSM online entry for Intellectual Disability. Dr. Greenspan is responsible for the tripartite model of adaptive behavior

(conceptual, social, and practical). His more recent work has been focused on gullibility, and he has led the way on establishing gullibility and social judgment as indicators of adaptive behavior. See DSM - Intellectual Disability, Online, Def. Ex. 22b. (Citations in the DSM, including to Dr. Greenspan, only appear online.) See also Greenspan direct, 6/12/17, Tr. 4-10, 21-22.

553. Dr. Greenspan accepted and followed the clinical standard as set forth by the AAIDD and DSM-5.

554. Dr. Greenspan considered risk factors and Mr. Roland's life history in making his diagnosis.

555. Dr. McGrew had ten years of experience as a school psychologist before becoming a professor and a measurement consultant to psychological test publishers and studies. He is a coauthor of the Woodcock-Johnson Battery--Third Edition and the Woodcock-Johnson Battery--Fourth Edition tests, "a widely used nationally standardized battery of intelligence, oral language, and achievement tests appropriate for use from preschool through late adulthood. The WJ test batteries have been highly praised by test reviewers for psychometric excellence, strong theoretical foundation, and innovation."

556. Dr. McGrew followed the Joint Test Standards in accurately reporting on the results of the IQ testing. See AERC, APA, NCME Standards for Educational and Psychological Testing, Def. Ex. 83dd; Dr. McGrew direct, 6/26/17 Tr. 189-90.

557. Dr. McGrew was offered and qualified by the Court as an expert in "applied psychological measurements, theories of human intelligence, and interpretation of intelligence tests". See Dr. McGrew Report, Def. Ex. 57 at 1-2. See also McGrew direct, 6/6/17, Tr. 54-55.

558. Dr. Bigler is a widely-published ABPP-certified clinical neuropsychologist and has directed clinical psychology Ph.D. programs for more than 40 years. He was offered and

qualified by the Court as an expert in clinical neuropsychology. See Dr. Bigler Report, 5/22/17, Def. Ex. 55 at 1. See also Bigler direct, 6/23/17, Tr. 43.

559. Dr. Bigler is and objective, board-certified clinical neuropsychologist who did not claim to be an expert in ID. In this case, he simply discussed the neuropsychological testing and evaluations through his report and testimony, considering all of the evidence before him, and reported his evaluation and the accepted scientific standards.

III. Bias in Government Experts

560. Each of the Government's experts did not follow the clinical standard for intellectual disability. Each of the Government's experts rejected the clinical standard set forth in the AAIDD, either in whole or in part. See Dr. Morgan direct, 6/16/17, Tr. 53-55; Dr. Morgan cross, 6/16/17, Tr. 145, 160-161, 168, 170; Dr. Morgan cross, 6/19/17, 7-8, 53. See Dr. Marcopulos cross, 6/20/17, Tr. 182-185. See also Dr. Denney direct, 6/22/17, 67-70.

561. None of the Government's experts were specialists in the field of intellectual disability. They had not published in the field, or focused their clinical practice on intellectual disability. They were general neuropsychologists qualified to diagnose every disorder in the DSM.

562. Their approach was forensic rather than clinical, and relied on isolated examples of strengths to rule out deficits, evidence of erroneous understandings of the clinical standard or psychometrics of an IQ test, and idiosyncratic methods not accepted by any court or experts in the field of intellectual disability.

A. Dr. Morgan

563. Dr. Morgan neglected the clinical standard in determining the validity of IQ testing. He did not evaluate test-retest scores based upon the most reliable full scale or index

scores. Instead, in his report he discussed differences between raw data scores, and in his testimony he discussed differences in scaled subtest scores, without accounting for the most reliable and conservative 95% confidence interval. Subtest scores, next to individual items are the most unreliable scores on an IQ test, and subject to the greatest variability. See Dr. McGrew Report, Def. Ex. 57, at 21 Figure 3. See Dr. Morgan Report, 5/28/17, Gov. Ex. 167 at 11 and 13.

564. When comparing subtest scores in his report and testifying about a "practice effect comparison" chart, Dr. Morgan did not use confidence bands. See Dr. Morgan Report, 5/28/17, Gov. Ex. 167 at 11 and 13. See also Gov. Ex. 352 and 352A.

565. Furthermore, during his testimony Dr. Morgan discussed subtest scores in terms of the 68% standard error of measurement (SEM) confidence bands, despite acknowledging that the 95% should be used in high stakes situations like a death penalty case for the Full Scale IQ and Composite IQ. Dr. Morgan applied only the 68% SEM confidence band to the subtest scores, because that calculation was "given by the publisher" and that was "all the scoring system provides." See Morgan cross, 6/16/17, Tr. 97 and 99.

566. The WAIS Manual does not state that 68% is the confidence interval to use when analyzing scores; it simply provides this as a base-line calculation in order to further calculate other confidence intervals. See Dr. McGrew direct, 6/27/17, Tr. 23-24; Dr. McGrew direct, 6/26/17 Tr. 112-114; see also Def. Ex. 24, WAIS-IV Manual, at 45 (providing one SEM calculation for all scores, subtest, Index and Composite scores).

567. With a confidence interval of 68%, the margin of error is 32%. "The confidence band tells you with 68 percent confidence, 95 percent confidence what that range of possible scores is, the true scores, and how much degree of error tolerance you are willing to accept." Dr. McGrew direct, 6/27/17 Tr. 20-21.

568. It is basic knowledge that to calculate to the 95% SEM confidence band, one just doubles the calculation provided in the WAIS-IV manual. See Dr. McGrew direct, 6/26/17, Tr. 112.

569. Dr. Morgan was either misleading the Court or exhibited a lack of knowledge about how to interpret IQ testing. After a lengthy back and forth, he could not answer a simple question about what was the 95% confidence interval for subtest scores. He stated that he did not need to do that because it was not "relevant." See Dr. Morgan cross, 6/16/17, Tr. 197. Then he stated that it was not provided by the publisher, and does not "appear in the manual." Id. But he cited no authority for the propriety of reporting subtest scores according to the 68% SEM confidence band when analyzing what someone's true score is, or for making determinations about the validity of the scores.

570. In fact he repeatedly acknowledged that the 95% confidence interval was the most appropriate. "Q. If you use something like the 68 percent confidence interval, that would be a 32 percent chance that you are not getting the correct score. A. We never use confidence interval that low. Q. You would always use a confidence interval that is a standard error of measurement that is the 95th percentile? A. Well, not always, but it is sort of standard practice to use the 95th. Q. And certainly in a, I think you testified, you want to make sure that you are getting the true score as much as possible? A. Yes. Yes. Correct." Dr. Morgan cross, 6/16/17 Tr. 93-94.

571. Dr. Morgan did not know that two Standard Errors of Measurement is related to the 95% confidence interval. "Q. And it is your testimony that the two standard errors of measurement is not related to the 95 percent confidence interval? If you know. A. No, I do not know." Dr. Morgan cross, 6/16/17 Tr. 104. Dr. Morgan then stated that he would not even attempt to calculate the 95% confidence interval for a subtest score "THE COURT: Would you

know how to do it if indeed you were curious to know? A. I would have to look it up. Q. Do you know it is double the one that is in the manual? A. Pardon? Q. Do you know you just double the one in the manual because it is one standard error of measurement to two? A. That might be correct. I don't know for sure. Often these determinations are statistical derivatives." Dr. Morgan cross, 6/16/17 Tr. 197-198.

572. In fact this was a very simple calculation, where all Dr. Morgan would have had to do was double the numbers. See Dr. McGrew direct, 6/26/17 Tr. 109, 112. Dr. Morgan seemed to not know this very basic fact about calculating confidence intervals. See Morgan cross, 6/16/17 Tr. 197-198.

573. Dr. Morgan claimed one could "eyeball" test results rather than following established psychometric principles of the reliability of IQ testing. See Morgan cross, 6/16/17, Tr. 200-201.

574. Dr. Morgan advocated for "common sense" interpretations rather than scientific methodology. See Morgan direct, 6/15/17, Tr. 165, 176, 186; see also Morgan cross, 6/16/17, 153-154; see also Morgan cross, 6/19/17, Tr. 33; see also Morgan redirect, 6/19/17, Tr. 166.

575. Dr. Morgan repeatedly applied statistics from the WAIS-IV manual, which was based on a healthy normative sample, and made generalized conclusions from that limited sample. He did not consider or document the limitations of making comparisons about persons with intellectual disability. See Dr. Morgan cross, 6/19/17 Tr. 16-17; Dr. Bigler direct, 6/23/17 Tr. 130-32.

576. Dr. Morgan's did not cite authority for his methodologies in his report or direct testimony. He testified that there was study that supported his "common sense" analysis of that

Mr. Roland reported different answers on his testing than Dr. Hunter's. This was a study with a small sample size of 20 people. See Def. Ex. 83kk; Dr. Morgan cross, 6/16/19 Tr. 155.

577. Dr. Morgan expressed private disagreements with the clinical standard for assessing intellectual disability rather than adhering to the established best practices. See Morgan cross, 6/19/17, Tr. 54.

578. Dr. Morgan, in administering the exact same IQ test within one year of a prior administration, violated the APA's Specialty Guidelines for Forensic Psychology, Guideline 10.02, and the standard practices for clinical neuropsychology. See Dr. Hunter 2/22/17 Affidavit, p. 6 (citing Lezak, M.D., Howieson, D.B., Bigler, E.D., & Tranel, D. (2012). Neuropsychological Assessment, Fifth Edition. New York: Oxford University Press). With regard to the assessment of intellectual disability, "[e]stablished clinical practice is to avoid administering the same intelligence test within the same year to the same individual because it will often lead to an overestimate of the examinee's true intelligence." Id.; Def. Ex. 39a, AAIDD-11 at 38.

579. Dr. Morgan advocated that the MMPI be administered to Mr. Roland, writing that it was "especially effective in gauging a subject's effort, truthfulness, and honesty, vis-a-vis neuropsychological testing, and as such, it is an effective means of determining whether the subject is "malingering." See Affidavit of Dr. Morgan, 2/17/17, Def. Ex. 61 at 4. Yet when Mr. Roland passed all of the Symptom Validity Measures in the MMPI, Dr. Morgan simply noted that "Mr. Roland had a valid profile" and only concluded that therefore MMPI "can be interpreted clinically." See Gov. Ex. 167 at 9.

580. Dr. Morgan advocated initially that the Vineland be administered to Mr. Roland, contrary to the test manual. Even after lengthy defense objections were filed about the

impropriety of administered the Vineland to the defendant himself, Dr. Morgan did not clarify in his report that he meant only to administer the Vineland to a third party. See Def. Ex. 43 at 1. See Def. Ex. 61 at 4-5.

581. Email communication from Dr. Marcopulos to the Government attorneys, discussing the administering the Vineland directly to Mr. Roland, state that the Government experts believed it was "disingenuous" to argue against administering the Vineland directly to Mr. Roland. See Marcopulos cross, 6/20/17, Tr. 98-99. Also see Def. Ex. 83z, Emails.

582. Dr. Morgan, in his report, reported only that the Composite Score for Ms. Whitehead did not meet the standard for intellectual disability. He either misled the Court or did not know that the clinical standard does not require deficits in all three domains or require a Composite Score. See Gov. Ex. 167 at 14.

583. Dr. Morgan did not indicate in his report that the Vineland administered to Ms. Whitehead showed deficits in the Communication / Conceptual Domain. See Gov. Ex. 167 at 14.

Dr. Morgan's calculation of the confidence interval for the Vineland used only the 90th percentile confidence interval, rather than the 95th percentile confidence interval, which would have yielded a range of 68-86 on the Communication Domain. See Morgan cross, 6/19/17, Tr. 71 -Tr. 72.

584. Dr. Morgan did not include in his report that Cheryl Whitehead, and possibly had elevated scores relative to the raters interviewed by Dr. Greenspan, was a biased reporter who believed that Mr. Roland killed her son. See Dr. Morgan direct, 6/16/19 Tr. 73. Dr. Morgan testified that he "factored in" her bias and that it might "be positively skewed, and not represent Mr. Roland's actual adaptive functioning at the time that the observations took place." Id. at 74, yet did not indicate that in his report or how he factored it in.

585. Dr. Morgan did not consider or write about risk factors, Mr. Roland's history, or the consistency of scores over time. See. Gov. Ex. 167.

586. Dr. Morgan made broad, absolutist statements like "the only explanation is differential effort," ignoring multiple other possible explanations for the results of the IQ testing. See e.g. Morgan direct, 6/15/17, Tr. 175.

587. Dr. Morgan wrote in his report that "During numerous routine interviews by mental health professionals in the New Jersey prison system who were Ph.D. level psychologists and master's level social workers, no one during any of those interviews documented the suspicion that he had intellectual disability or that he had cognitive impairment of any kind." See Gov. Ex. 167 at 4. He testified that "here is a gentleman who has been seen, numerous occasions by mental health professionals over a period of time talking to, interviewing him, doing mental status examinations with him as is required by the prison, that surely something would have been, would have emerged in terms of discussions, discussing with him, that would on have been a tip-off that perhaps there was ID present." See Morgan cross, 6/16/16, at 174-175.

588. In fact, Dr. Morgan neglected to mention NJ DOC records in which a Psy.D stated Mr. Roland "presented as cognitively, socially and behaviorally immature individual with limited judgment and decision-making" and "concrete thinking" as well. See Gov. Ex. 110 at 7-8.

589. Dr. Morgan admitted on cross-examination that there was evidence of Mr. Roland's impairments in his records, yet neglected to discuss them in his report or direct testimony. See Morgan cross, 6/16/2017, Tr. 176-182.

590. Dr. Morgan read the MMPI to Mr. Roland, because his reading was slow, but did not disclose that in his report or direct testimony. Dr. Morgan cross. 6/19/17, Tr. 50-51.

591. Dr. Morgan violated the ethical standards by disclosing the raw data to Government attorneys without first obtaining a Court Order. See Dr. Morgan Cross, 6/16/17, Tr. 116-117 and 122-127.

592 Dr. Morgan was told to "dig deeper," after he told the Government attorneys that Mr. Roland "might be MR," based upon Dr. Hunter's Summary Score Sheet, the KBIT from 2002, and Mr. Jasper's life history report. See Dr. Morgan direct, 6/15/17, Tr. 95-96.

593. Dr. Morgan did not conduct a thorough or independent assessment to determine whether Mr. Roland is intellectually disabled. He only interviewed one person, and rather than acknowledge the limitations or acknowledge the breadth of Dr. Greenspan's assessment, opined that Mr. Roland did not have deficits in adaptive behavior. See, generally, Dr. Morgan's 4/28/17 report, 5/22/17 Rebuttal Report, and testimony.

594. Dr. Morgan did not know that neuropsychological testing is relevant to the determination of intellectual disability, despite language in the DSM-5 that "Individual cognitive profiles based on neuropsychological testing are more useful for understanding intellectual abilities than a single IQ score. Such testing may identify areas of relative strengths and weaknesses, an assessment important for academic and vocational planning." DSM-5 at 37; see Dr. Morgan cross, 6/16/17 at 148-149:

> Q. Is it significant that neuropsychological testing and results of neuropsychological testing, is it your understanding that they are actually important in the diagnosis of ID?
>
> A. The most important aspect in the diagnosis of ID would be a valid IQ score. So that that would indicate that the other parts of the neuropsychological assessment battery are supplementary, and assist in the overall examination.
>
> Q. And are they relevant to the diagnosis of intellectual disability?

A. They are because neuropsychological assessment tests, that is the entire assessment battery, provides data for the understanding of a validity analysis.

Q. What about of the neuropsych testing in terms of showing different types of brain impairment?

A. That is what neuropsychological tests do. They show different types of brain impairment with respect to brain impairment on cognitive functioning.

Q. So deficits in planning or reasoning that show up on a neuropsychological testing are relevant to the determination of intellectual disability?

A. Well, they are not relevant in terms of the overall diagnosis. Only the Full Scale IQ is really relevant, and required for the diagnosis, to satisfy prong 1. There is nothing in prong 1 about neuropsychological test results.

Q. Showing you exhibit 22 A. Looking at prong 1 in the DSM, prong 1 in the DSM mentions deficits in intellectual functioning, such as reasoning problem solving, planning, abstract thinking. Judgment. Learning from experience. You see those mentioned in prong 1?

A. They are assessed by the Wechsler Scales of Intelligence also.

Q. Are the attributes that are also assessed by neuropsychological testing?

A. Yes.

Q. Are you aware whether or not the committee intended for neuropsychological testing to be part of an assessment of intellectual disability?

A. I have no idea.

B. Dr. Marcopulos

595. Dr. Marcopulos neglected the clinical standard of both the AAIDD and the DSM-5 in her report and testimony.

596. Dr. Marcopulos testified, as stated supra, that she disagrees with the AAIDD on the clinical standard.

597. Dr. Marcopulos either misled the Court or did not understand the clinical standard for intellectual disability under the DSM-5. She testified that other diagnoses must be ruled out in order to diagnose intellectual disability: "Q. And again, the diagnosis says that a diagnosis of intellectual disability should be made whenever the criteria are met. ... A. And you can rule out, reasonably rule out other explanations." Dr. Marcopulos mis-applied general principles of "differential diagnosis" that relate to "every psychiatric disorder in that book. And it lists the other possible things that mimic and have similar symptoms as the disorders in assessing that you must consider in ruling in or out, and of course you can have co-morbidity." Dr. Marcopulos cross, 6/20/17 Tr. Yet Dr. Marcopulos failed to realize that in fact, under the Differential Diagnosis Section for Intellectual Disability, what the DSM-5 actually states is "A diagnosis of intellectual disability should be made whenever Criteria A, B, and C are met."

598. Under the three diagnoses the DSM lists in the "differential diagnosis" section, it specifically states that these diagnoses (Major and mild neurocognitive disorders, Community disorders, and Autism spectrum disorder) can co-occur with Intellectual Disability. DSM-5 at 39-40. The DSM-5 diagnostic criteria for intellectual disability are unique in that it does not state that ruling out is required. On the contrary, "Co-occuring mental, neurodevelopmental, medical, and physical conditions are frequent in intellectual disability, with rates of some conditions (e.g.

mental disorders, cerebral palsy, and epilepsy) three to four times higher than in the general population. See DSM-5, Def. Ex. 22c at 39-40.

599. Dr. Marcopulos, further, misapplied the "related" clause in the DSM-5. The Court is not required to "parse out" those adaptive deficits that are caused by ADHD, or emotional issues, or trauma, or any of the other conditions that have high co-morbidity with intellectual disability ("ID"). Also attached is a paper from a symposium with Dr. Harris, Dr. Greenspan, and Dr. Marc Tasse, describing the clause and what was intended. And finally, attached is a chapter from a book written by Dr. Harris and Dr. Greenspan, further explaining this for the Court. See Def. Ex. 96 and 97.

600. The DSM-5 included a broader definition of intelligence in the first criterion than the DSM-IV, and mirrored the language of deficits illuminated by both intelligence and neuropsychological testing ("reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience"). The "related" clause, rather than impose an additional diagnostic hurdle, simply means that intellectual deficits are related to, the reason for, the adaptive deficits. The second criterion describe the severity level. The definition of the disability is met when criterion A, B and C are met. The "related clause" does not create another criterion or condition; it simply states the logical conclusion that deficits in adaptive functioning are related to intellectual deficits.

C. Dr. Denney

601. Dr. Denney neglected the clinical standard, as stated supra, by disagreeing with the AAIDD on multiple aspects of applying the clinical standard.

602. Dr. Denney applied an idiosyncratic methodology in order to invalidate the results of psychometrically sound IQ testing, as argued more fully, supra. See Dr. McGrew direct, 6/27/17 Tr. 28-29.

603. Dr. Denney cited an article in his report, Government Exhibit 368, in support of the claim that "It is typical for individuals attempting to feign on intelligence tests to place results in the range of mild ID." See Dr. Denney Report, 5/31/17, Def. Ex. 68, page 20-21.

604. However, the Johnstone and Cooke article cited by Dr. Denney itself states that "The results of this study suggest that individuals who attempt to fake low on the WAIS-R may employ a common set of tactics that are easily identifiable… It is, however, erroneous to assume that such observations are conclusive and we would advocate that other assessment procedures specifically developed for detecting malingering are administered in order to substantiate the results." See Gov. Ex. 368, internal page 315.

605. Indeed, "assessment procedures specifically developed for detecting malingering" were administered to Mr. Roland and do not substantiate the claim that Mr. Roland malingered or had poor effort. See Dr. Hunter direct 6/7/17, Tr. 194 ("I would say that is a possibility, but using the malingering, the effort tests allow us to test against that.; see also Dr. Bigler direct 06/23/17, Tr. 44 -45.

606. Furthermore, the Johnstone and Cooke article uses a sample of convenience and a small sample not analogous to Mr. Roland: namely, 30 incarcerated young offenders who had previously been used for a different study by the researchers and 15 postgraduate doctoral students and research fellows (See Government Exhibit 368, internal pages 307 and 310-311).

607. Dr. Bigler warned against relying on research using samples of convenience and that is not done "on a large scale with multiple, multiple diagnostic circumstances." See Dr. Bigler direct, 06/23/17, Tr. 49, Tr. 52 - 53.

608. Dr. Denney discussed another article during his testimony (see, generally, Denney redirect, 06/23/2017, Tr. 16 (line 23) through Tr. 20 (line 3)), "American Academy of Clinical Neuropsychology Consensus Conference Statement on the Neuropsychological Assessment of Effort, Response Bias, and Malingering," Defense Exhibit 38w, published in 2010.

609. Like Dr. Bigler, this article also states that "Clinicians need to assign weight to specific results according to the rigor of the studies and the relevance of samples studied to the clinician's case at hand." See Def. Ex. 38w, internal page 1101. Dr. Denney did not do this in his analysis before the Court. Dr. Denney repeatedly stated that the "only" explanation was poor effort, without considering other alternative explanations as required by the Joint Test Standards. Dr. McGrew direct, 6/26/17 Tr. 133; Def. Ex. 83dd; Dr. McGrew 5/23/17 Report, Def. Ex. 57, appendices.

IV. Conclusions of Law

A. Legal Framework and Prevailing Clinical Standards

610. "The Eighth Amendment prohibits 'cruel and unusual punishments,' and 'reaffirms the duty of the government to respect the dignity of all persons,' " Moore, 137 S.Ct. at 1048, quoting, Hall, 134 S.Ct. at 1992 (in turn quoting, Roper v. Simmons, 543 U.S. 551, 560 [2005]).

611. "'To enforce the Constitution's protection of human dignity,' we 'loo[k] to the evolving standards of decency that mark the progress of a maturing society,' recognizing that

'[t]he Eighth Amendment is not fastened to the obsolete.' " Moore, 137 S.Ct. at 1048, quoting, Hall, 134 S.Ct. at 1992.

612. In Atkins the Supreme Court held that "the Constitution 'restrict[s] … the State's power to take life of' *any* intellectually disabled individual." Moore, 137 S.Ct. at 1048 (emphasis in original), quoting, Atkins, 536 U.S. at 321; see also Hall, 134 S.Ct. at 1992-93; Roper, 543 U.S. at 563-64.

613. "Executing intellectually disabled individuals … serves no penological purpose, … runs up against a national consensus against the practice … and creates a 'risk that the death penalty will be imposed in spite of factors which may call for a less severe penalty.' " Moore, 137 S.Ct. at 1048, citing and quoting, Atkins, 536 U.S. at 313-21; see also Atkins, 536 U.S. at 307 (emphasizing that "the American public, legislators, scholars, and judges" had deliberated over the question of the death penalty for the intellectually disabled and had come to a consensus that it should be prohibited).

614. The "current manuals" of the DSM and AAIDD "offer 'the best available description of how mental disorders are expressed and can be recognized by trained clinicians.'" Moore, 137 S.Ct. at 1053, quoting, DSM-5, at xli, and citing, Hall, 134 S.Ct. at 1990, 1991, 1993, 1994-96 (relying upon the DSM-5 and AAIDD-11 as the current clinical standards that must be followed); see also Atkins, 536 U.S. at 308 n.3, 317 n.22, (relying upon then-current manuals, including the then current-version of the AAIDD manuals [then AAMR] to define the clinical standards).

615. Courts must rely "on the most recent … versions of the leading diagnostic manuals—the DSM-5 and AAIDD-11." Moore, 137 S.Ct. at 1048-49, quoting, 134 S.Ct. at 1991, 1993-94, 1994-95, 2000-01.

616. A court "violate[s] the Eighth Amendment by 'disregard[ing] established medical practice.' " Moore 137 S.Ct. at 1049, quoting, Hall, 134 S.Ct. at 1995.

617. The Supreme Court initially "estimated that between 1 and 3 percent of the population has an IQ between 70 and 75 or lower." Atkins, 536 U.S. at 309 n.5, citing, 2 B. Sadock & V. Sadock, Comprehensive Textbook of Psychiatry, at 2952 (7th ed. 2000).

618. After the State of Florida created a bright-line IQ ceiling of 70, the Supreme Court in Hall held that such a ceiling was unconstitutional. See Hall 134 S.Ct. at 2000 ("By failing to take into account the SEM and setting a strict cutoff of 70, Florida 'goes against the unanimous professional consensus.' ") (citation omitted); see also Moore, 137 S.Ct. at 1048 (citing Hall for the proposition that an IQ score of 70 is no longer a ceiling above which intellectual disability may not be found).

619. "IQ test scores are approximations of conceptual functioning but may be insufficient to assess reasoning in real-life situations and mastery of practical tasks." Hall, 134 S.Ct. at 2000, citing, DSM-5 at 37.

620. "An IQ score is an approximation, not a final and infallible assessment of intellectual functioning." Hall, 134 S.Ct. at 2000, citing, inter alia, APA Amicus Brief at 24 ("[I]t is standard psychometric practice to report the 'estimates of relevant reliabilities and standard errors of measurement' when reporting a test score"), Furr & Bacharach, Psychometrics, at 119 ("the standard error of measurement is an important psychometric value with implications for applied measurement") (2d ed. 2014).

621. "Intellectual disability is a condition, not a number." Hall, 134 S.Ct. at 2001, citing, DSM-5 at 37.

622. "This is not to say that an IQ score is unhelpful. It is of considerable significance, as the medical community recognizes. But in using these scores to assess a defendant's eligibility for the death penalty a State [or court] must afford these test scores the same studied skepticism that those who design and use the tests do, and understand that an IQ test represents a range rather than a fixed number." Hall, 134 S.Ct. at 2001 (emphasis added).

623. Standard Error of Measurement "is not a concept peculiar to the psychiatric profession and IQ tests. It is a measure that is recognized and relied upon by those who create and devise tests of all sorts." Hall, 134 S.Ct. at 2000, citing, Furr & Bacharach, Psychometrics, at 118 (identifying SEM as "one of the most important concepts in measurement theory").

624. Moreover, "Even if 'the views of medical experts' do not 'dictate' a court's intellectual-disability determination … the determination must be 'informed by the medical community's diagnostic framework.' " Moore, 137 S.Ct. at 1048, quoting, Hall, 134 S.Ct. at 2000.

625. "[W]here an IQ score is close to, but above, 70, courts must account for the test's 'standard error of measurement.'" Moore, 137 S.Ct. at 1049, citing, Hall, 134 S.Ct. at 1995, 2001; Brumfield v. Cain, 135 S.Ct. 2269, 2278 (2015) (relying on Hall to find unreasonable a state court's conclusion that a score of 75 precluded an intellectual-disability finding).

626. "[T]he standard error of measurement is 'a statistical fact, a reflection of the inherent imprecision of the test itself.… For purposes of most IQ tests,' this imprecision in the testing instrument 'means that an individual's score is best understood as a range of scores on either side of the recorded score … within which one may say an individual's true IQ score lies.'" Moore, 137 S.Ct. at 1049, quoting, Hall, 134 S.Ct. at 1995.

627. "An individual's IQ test score on any given exam may fluctuate for a variety of reasons. These include the test-taker's health; practice from earlier tests; the environment or location of the test; the examiner's demeanor; the subjective judgment involved in scoring certain questions on the exam; and simple lucky guessing." Hall, 134 S.Ct. at 1995, citing, AAIDD User's Guide: Intellectual Disability: Definition, Classification, and Systems of Supports (11th ed. 2012) (hereinafter, "AAIDD User's Guide"), at 22, A. Kaufman, IQ Testing 101, at 1380139 (2009).

628. "A test's standard error of measurement 'reflects the reality that an individual's intellectual functioning cannot be reduced to a single numerical score.'" Moore, 137 S.Ct. at 1049, quoting, Hall, 134 S.Ct. at 1995; see also DSM-5 at 37; AAIDD User's Guide at 22-23.

629. The standard error of measurement quantifies the variability inherent in the IQ score, that include "variations in test performance, examiner's behavior, cooperation of test taker, and other personal and environmental factors." AAIDD-11 at 36. "[To] ignore the inherent imprecision of these tests risks execution of a person who suffers from intellectual disability." Hall, 134 S.Ct. at 2001; see also Moore, 137 S.Ct. at 1049 (explaining that "Moore's score of 74, adjusted for the standard error of measurement, yields a range of 69 to 79").

630. When "the lower end of" a defendant's IQ "score range," once adjusted for the standard error of measurement, "falls at or below 70," courts are required "to consider … adaptive functioning." Moore, 137 S.Ct. at 1049, citing, Hall, 134 S.Ct. at 2001.

631. A court "cannot *narrow*" the category of persons who meet the clinical standard for intellectual disability, because this "creat[es] an unacceptable risk that persons with intellectual disability will be executed." Moore, 137 S.Ct. at 1049, 1051 (emphasis in original) (citing Hall, 134 S.Ct. at 1990).

632. The "intellectual-disability inquiry" does not end, "one way or the other, based on [the defendant's] IQ score. Rather, in line with Hall, [the Supreme Court] require[s] that courts continue the inquiry and consider other evidence of intellectual disability where an individual's IQ score, adjusted for the test's standard error, falls within the clinically established range for intellectual-functioning deficits." Moore, 137 S.Ct. at 1050.

633. Courts are required to follow the "prevailing clinical standards," not forensic standards, in determining whether a defendant is intellectually disabled. Moore, 137 S.Ct. at 1050; see also id. at 1049 (also referring to the "prevailing clinical standards" as "established medical practice"); id. at 1050-52 (examining the multiple manners in which the Supreme Court found that Texas had violated the "prevailing clinical standards").

634. The defense has conducted an exhaustive search of prior cases discussing intellectual functioning (i.e., Criterion 1) subtest scores, and can find no prior decision where a court relied upon a divergent subtest score found in one administration of an IQ test to invalidate the full-scale IQ ("FSIQ") of a separately administered IQ test.

635. There are 51 such cases: 26 Federal and 25 State.[6]

636. In United States v. Davis, 611 F.Supp.2d 472, 484 (D.Md. 2009), the District Court specifically rejected the argument that divergent subtest scores can be relied upon to invalidate "scores [that] have been remarkably consistent over a period of more than 25 years, including a number of times when no incentive to malinger or exaggerate deficits would have been present," and concluded that "disregard of the FSIQ is at odds with the significance attributed to it by the publisher of the assessment measure."

[6] A list of these cases can be provided to the Court upon request.

637. None of the other cases invalidate IQ scores based on the analysis employed by the Government's experts here.

638. Even when discrepancies exist between subtest scores, "the general rule" is that the "FSIQ is the best approximation of an individual's overall cognitive functioning." Davis, 611 F.Supp.2d at 485.

639. If Mr. Roland is intellectually disabled under the definitions provided by the AAIDD or the DSM-5, he is entitled to protection of the Eighth Amendment. See Moore, 137 S.Ct. at 1048 ("[T]he Constitution 'restrict[s] … the State's power to take life of' *any* intellectually disabled individual.") (emphasis in original), quoting, Atkins, 536 U.S. at 321; see also Hall, 134 S.Ct. at 1992-93; Roper, 543 U.S. at 563-64.

640. The AAIDD is not merely an "advocacy organization," but a leading authority in the medical community for the standards for diagnosing and assessing intellectual disability. See Moore, 137 S.Ct. at 1048-49 (holding that courts must rely "on the most recent … versions of the leading diagnostic manuals—the DSM-5 and AAIDD-11"), quoting, Hall, 134 S.Ct. at 1991, 1993-94, 1994-95, 2000-01; see also United States v. Wilson, 04 Cr. 1016 (NGG) (EDNY), Order, dated, June 22, 2012 (Doc 782) at 13 n.9:

> The court need not decide at this time whether it will apply the APA or the AAMR/AAIDD definitions of adaptive functioning in ruling on Wilson's Atkins motion. The Government suggests that it might be improper to use the AAIDD definition "[b]ecause the AAIDD is an advocacy group that advocates on behalf of the mentally retarded." (Gov't Mem. at 22 n.4.) It states that "some courts have determined that the more prudent course is to adopt the definition of mental retardation promulgated by the [APA]," and cites "United States v. Johnson, 2010 WL 4659587 (E.D. La. 2010)," for this proposition. (Id.) What the Government surprisingly fails to point out is that it is not citing a district court decision but is referencing, if anything, a memorandum filed by the Government in that case. (See Def. Mem. at 9. & n.5.) The

> Government also ignores the fact that Atkins itself cited favorably the definition of mental retardation provided by the AAIDD's predecessor, the AAMR, see 536 U.S. at 308 n.3, and that several courts have relied heavily upon the AAIDD's publications in ruling on Atkins claims, see, e.g., United States v. Smith, 790 F. Supp. 2d 482, 485-86 (E.D. La. 2011); United States v. Lewis, No. 08-CR-404 (SO), 2010 WL 5418901, at *5, *23 (N.D. Ohio Dec. 23, 2010); Hardy II, 762 F. Supp. 2d at 854. The Government is strongly discouraged from making this argument in future submissions to the court.

641. A court "violate[s] the Eighth Amendment by 'disregard[ing] established medical practice.' " Moore, 137 S.Ct. at 1049, quoting, Hall, 134 S.Ct. at 1995.

B. Practice Effect

642. The AAIDD-11 makes clear that practice effect should be taken into consideration when interpreting an individual's IQ scores. See AAIDD-11 at 35, 38, 102. Courts have agreed. See, e.g., United States v. Wilson, 922 F.Supp.2d 334, 352-54 (EDNY 2013) (listing cases and discussing the impact of practice effect on performance [i.e., matrix] reasoning)..

643. "The theory behind the practice effect 'is that because IQ assessments rely upon novel tasks and instructions to assess ability and performance, an instruction given on a test will be more familiar to the examinee and more quickly implemented on subsequent presentations.' " Wilson, 922 F.Supp.2d at 352, quoting, Wiley v. Epps, 668 F.Supp.2d 848, 896 (N.D.Miss. 2009).

644. The impact of practice effect is "normally greater on performance items than on verbal items…. 'Performance scales are more susceptible to practice effects because the tasks rely, in part, on the novelty of items[,] and familiarity with those item takes away the novelty, improving scores.' " Wilson, 922 F.Supp.2d at 352 (citation to expert report and footnote

omitted); see also id. at 352 n.14 ("Contrary to the Government's suggestion ... the fact that an individual does not exhibit an increase in his IQ scores does not mean that these scores have not been influenced by the practice effect. The practice effect may be offset by other factors tending to diminish a score, such as examiner error, cooperation of the test-taker, or measurement error, which may result in an unchanged overall score.") (citation to expert reports omitted).

645. Indeed, in Wilson Judge Garaufis explained:

> [P]ractice effect is heavily dependent upon the length of time between the original test and the retest. Dr. Denney, for example, testified that there is an important difference between a retest within "a short period" and a retest after a period of more than a year, and that practice effects tend to "fall away" after seven years. (Tr. at 1920.) Cf. Kaufman, supra, at 828 (practice effect overestimates a person's intellectual functioning "especially if the retest is given within about six months of the original test, or ... several times in the course of a few years").

Wilson, 922 F.Supp.2d at 353, citing, Blue v. Thaler, Civil Action No. H-05-2726, 2010 WL 8742423, *13 (S.D.TX Aug. 19, 2010) ("[T]he practice effect only applies when there is a short interval between tests. The nine-month period here should have dispelled any lingering effect from the first test."), Garcia Briseno v. Dretke, Civil Action No. L-05-08, 2007 WL 998743, *8 (S.D.TX March 29, 2007) ("[I]n a two-to-twelve week period of retesting, full-scale IQ can be as much as five points higher. For performance IQ scale practice effects will be minimized after between a year to two years."), Green v. Johnson, CIVA 2:05-CV-340, 2006 WL 3746138, *44 (E.D.VA Dec. 15, 2006) ("The practice effect refers to an increase in a person's score on an IQ test when it is administered within a short time after taking the same or [a] similar test. ... [T]he effect is more pronounced the closer in time the tests are given.").

646. Just as Judge Garaufis did in Wilson, this Court should take practice effect into account when considering the increase in Mr. Roland's IQ score from 70, when administered by

Dr. Hunter, to 75, when administered by Dr. Morgan. See Wilson, 922 F.Supp.2d at 353-54 ("To summarize, the court will—as the AAIDD recommends—take into account the practice effect in interpreting Wilson's IQ scores….. [T]he court will take Dr. Olley's approach and *interpret* Wilson's IQ scores in light of the practice effect without "reducing" his scores on that basis…. When doing so, the court will be mindful that the practice effect diminishes significantly (although perhaps without disappearing entirely) as the length of time between test administrations increases."), citing, AAIDD 2010 Manual at 35, 38, 102, Blue, 2010 WL 8742423, at *13; see also United States v. Nelson, 419 F.Supp.2d 891 (E.D.La. 2006) (applying practice effect and finding defendant ineligible for the death penalty due to intellectual disability); Smith v. Ryan, 813 F.3d 1175 (9th Cir. 2016) (same).

C. Effort

647. Dr. Morgan's conclusion that Mr. Roland's effort affects the validity of the IQ tests administered by him and separately by Dr. Hunter, not to mention the 2002 K-BIT by the Juvenile Justice Commission and the MR determination in 1999 by the Social Security Administration, is not supported by the record, or by the law. See, discussion, infra, Criterion 1 and 3.

648. There is no support for Dr. Morgan's or Dr. Denney's analysis in case law. See, e.g., United States v. Davis, 611 F.Supp.2d 472, 484 (D.Md. 2009) ("The Court finds Dr. Spector's opinion regarding the defendant's test-taking effort conclusory, at best, and inconsistent with the fact that his scores have been remarkably consistent over a period of more than 25 years, including a number of times when no incentive to malinger or exaggerate deficits would have been present. Moreover, his disregard of the FSIQ is at odds with the significance attributed to it by the publisher of the assessment measure.").

649. The accepted clinical standard is to accept the results of the effort tests if in fact they were passed. In fact, *failed* effort tests do not even necessarily invalidate an IQ score. See United States v. Montgomery, 2014 WL 1516147, at *37 (W.D.TN Jan. 28, 2014) (defendant failed three effort tests -- one of which was the Reliable Digit Span embedded measure -- but the Court found that the defendant's "2012 and 2013 WAIS-IV IQ scores are not invalid due to low effort or malingering. Defendant has satisfied his burden of proving by a preponderance of the evidence that these IQ scores are valid…. Defendant passed the majority of the effort tests administered to him across the relevant testing dates, lending support to the proposition that Defendant's failing efforts on November 9 and November 20, 2012, may be false-positives.").

650. And in United States v. Hardy, 762 F. Supp. 2d 849, 867 (E.D. La. 2010), the Court found that an inference of malingering was inconsistent with the fact that the defendant had improved on seven out of 10 subtests on a WAIS-R. "The Court first notes that, regardless of how Hardy performed on those two subtests, he clearly demonstrated overall improvement during the testing by the government. That improvement is inconsistent with any malingering strategy and is indicative of adequate effort."

D. Flynn Effect

651. The application of the Flynn effect is not necessary to establish that Mr. Roland is intellectually disabled, since even his non-Flynn-adjusted scores fall within the realm of "mild" intellectual disability, see Dr. Hunter Expert Report, dated 4/28/2017 Def. Ex. 40, at 12 (calculating a FSIQ of 71); Dr. Morgan Expert Report, dated 4/28/2017 Govt. Ex. 167 at 10 (calculating a FSIQ of 75); Def. Ex. 9a at 58 (indicating that Mr. Roland's 2002 K-BIT composite IQ score of 70).

652. Nonetheless, courts have often recognized the validity of applying the Flynn Effect. See, e.g., Holloday v. Allen, 555 F.3d 1346, 1357-58 (11th Cir. 2009) (IQ scores may have been inflated because of Flynn Effect); Walker v. True, 399 F.3d 315, 322-23 (4th Cir. 2005) (directing district court to consider Flynn Effect on remand); United States v. Wilson, 170 F.Supp.3d 347, 353 (E.D.N.Y. 2016); United States v. Davis, 611 F. Supp. 2d 472, 488 (D. Md. 2009) (finding the Flynn Effect "both relevant and persuasive"); United States v. Lewis, 2010 LEXIS 138375, at *14 (recognizing "the Flynn Effect as a best practice for an intellectual disability determination."); but see Hooks v. Workman, 689 F.3d 1148, 1170 (10th Cir. 2012) (pre-Hall and Moore decision, declining to decide the issue on habeas, finding that Oklahoma's statutory scheme, which precluded consideration of Flynn effect, was not contrary to clearly established law because the Supreme Court had not decided the issue).

653. Adjusting Mr. Roland's IQ scores for the Flynn effect results in a FSIQ of 68 on Dr. Hunter's test, 72 on Dr. Morgan's test, 69 on the 2002 K-BIT, and 74 on the 2017 KBIT-2. See Dr. McGrew Report, 5/31/17, Def. Ex. 57 at 6, Table 1. See also Dr. Hunter Report, Def. Ex. 40 at 12.

E. Adaptive Behavior

654. It is important to use multiple sources, beyond simply a normed instrument, in order to assess adaptive behavior. See Brown v. Rogers, No. 1:99CV549, 2017 WL 1134374, at *8 (S.D. Ohio Mar. 27, 2017) ("The Court finds persuasive Petitioner's argument that after Hall, clinical judgment, beyond adherence to IQ-test thresholds, can support a diagnosis of intellectual disability."); United States v. Williams, 1 F. Supp. 3d 1124, 1139–40 (D. Haw. 2014) ("In this regard, various witnesses confirmed the importance of clinical judgment, and the use of multiple sources of information, in assessing a person's intelligence and whether someone is intellectually

disabled.) (citing testimony various expert witnesses), and id. at 1145–46 ("Prong two generally requires a more expansive investigation of a defendant's life history and skill levels than could be fully evaluated through use of a normed instrument."); see also United States v. Davis, supra, 611 F.Supp.2d 472, 491 (D.Md. 2009) (describing prong two analysis as "amorphous"); United States v. Hardy, 762 F.Supp.2d 849, 883 (E.D.La. 2010) (defining "clinical judgment" as "a special type of judgment rooted in a high level of clinical expertise and experience ... to enhance the quality, validity, and precision of the clinician's decision").

655. Use of a standard measure of adaptive behavior provided the floor of what was required: "A resource document approved by the APA Council on Psychiatry and Law in May 2003 also urges states to enact laws that 'encourage the use of at least one standardized measure of adaptive behavior while recognizing the ultimate need for clinical judgment.' " Wiley v. Epps, 668 F.Supp.2d 848, 901 (N.D. Miss. 2009), aff'd, 625 F.3d 199 (5th Cir. 2010), as revised (Nov. 17, 2010), citing The American Psychiatric Association's Resource Document on Mental Retardation and Capital Sentencing: Implementing Atkins v. Virginia, The Journal of the American Academy of Psychiatry and the Law, 32:304–8, 2004.

656. Adaptive behavior instruments are not the only evidence to consider in an adaptive behavior assessment. "Adaptive functioning is assessed using *both* clinical evaluation and individualized, culturally appropriate, psychometrically sound measures." DSM-5 at 37. See also United States v. Wilson, 170 F.Supp. 3d at 368 (citing the above-referenced clinical standards of the AAIDD and DSM-5, and noting that "Federal courts have been reluctant to rely heavily on such tests, particularly in the Atkins context where they often are based on retrospective recollections of an individual's youth); see also United States v. Williams, 1 F. Supp. 3d at 1147-48 (determining that it would place "some weight" on the results of

standardized tests, but noting that the "breadth of evidence enables the court to take a multifactorial approach"); United States v. Salad, 959 F.Supp.2d 865, 878 (E.D. Va. 2013) ("Prong two generally requires a more expansive investigation of a defendant's life history and skill levels than could be fully evaluated through use of a normed instrument.").

F. The "Related" Clause in the DSM-5 Does Not Create A Causation Requirement

657. The Court in United States v. Wilson, 170 F.Supp.3d 347 (EDNY 2016) addressed this issue at length.

> [W]here an individual has demonstrated significantly subaverage intellectual functioning, along with significant adaptive deficits that relate to such intellectual impairment, that individual has satisfied the first two diagnostic criteria for intellectual disability. To require this individual to further prove that he satisfies these criteria because he is intellectually disabled would render the criteria meaningless. Indeed, the Government's approach would transform the standard for intellectual disability into an impossible test: In order for a defendant to show that he was intellectually disabled, he would need to prove that he satisfied the criteria because he was intellectually disabled. As though trapped on an M.C. Escher staircase, the defendant would climb to the top only to find he had returned to the bottom.
>
> Likewise, the court finds that a defendant is not required to rule out other contributing causes of his adaptive deficits in order to meet the standard for intellectual disability. The APA has clearly stated as much: "The diagnosis criteria for [intellectual disability] do not include an exclusion criterion; therefore, the diagnosis should be made whenever the diagnostic criteria are met, regardless of and in addition to the presence of another disorder." DSM-IV at 47. Even assuming that Wilson suffers from other disorders or disabilities such as ADHD, a learning disability, or a behavior disorder, this does not preclude a finding that he also suffers from intellectual disability. Indeed, many of these other conditions are strongly associated with intellectual disability. See DSM-V at 40 (explaining that "[c]o-occurring conditions . . . are frequent in intellectual disability). According to the APA, impulse-control disorders and ADHD are among the most common co-occurring disorders with intellectual disability. Id. Furthermore, "Individuals with intellectual disability . . . may also exhibit aggression and disruptive behaviors, including harm of others or property destruction." Id. Dr. Mapou, who testified for the Government, declared that it was possible to have both intellectual disability and a learning disability. (Tr. at 2084.) Even Dr. Denney, who also testified for the Government, conceded that many of the symptoms of a learning disability overlap with the symptoms of mild intellectual disability. (Id. at 1938.)

> Nonetheless, the Government essentially asks the court to break down each deficit and determine what portion of each is attributable to a learning disability, emotional disturbance, ADHD, or a conduct disorder, to name but a few of the many diagnoses that have been applied to Wilson throughout his life. Yet the court can find no such requirement in the clinical guidelines. Nor does the court believe that such an approach would comply with the legal requirement, as articulated by Hall, to avoid the "unacceptable risk that persons with intellectual disability will be executed" in violation of the Eighth Amendment. 134 S. Ct. at 1990. Accordingly, in analyzing Wilson's adaptive functioning, the court will not engage in a detailed causation analysis for every demonstrated deficit.

Wilson, 170 F.Supp.3d at 371-72 (footnotes omitted).

G. Conduct in Prison

658. The Supreme Court in Moore v. Texas, in overturning the Texas CCA's decision, noted that "the CCA stressed Moore's improved behavior in prison. Clinicians, however, caution against reliance on adaptive strengths developed 'in a controlled setting,' as a prison surely is." Id. 137 S.Ct. at 1050. See AAIDD User's Guide at 20 (counseling against reliance on behavior in jail or prison: "The diagnosis of ID is not based on the person's 'street smarts', behavior in jail or prison, or 'criminal adaptive functioning.' ").

659. The District Court in United States v. Wilson, 170 F.Supp.3d at 369-370, discussed this issue at length:

> [T]he clinical standard for intellectual disability asks whether an individual's adaptive deficits are 'sufficiently impaired that ongoing support is needed in order for the person to perform adequately in one of more life settings at school, at work, at home, or in the community.' DSM-V at 38. The clear implication of this language is that intellectually disabled individuals may be able to perform adequately if they are provided ongoing support, such as the structure, observation, instruction, and discipline that incarceration necessarily entails. However, the ability to perform adequately with ongoing support does not negate a finding of intellectual disability.

680. The District Court in Shields concluded, "After all, [intellectually disabled] individuals who are placed in medical institutions because of the severity of their limitations do not cease to be [intellectually disabled] due to the fact that the institutions in which they have been placed provide them care." United States v. Shields, 04 Cr. 20254 (BBD) (W.D.TN) (Opinion, dated, May 11, 2009) (Doc. 557), at 27; see also Hardy, 762 F.Supp.2d at 899 (noting that "an institutional environment of any kind necessarily provides 'hidden supports'").

681. As the District Court is Davis explained while discussing how a defendant's functioning in jail should be evaluated:

> The Court was unimpressed with this testimony. First, detailees perform precisely the type of rote, repetitive tasks that persons with mental retardation are often capable of doing well. Next, the corrections officers simply did not have enough information about the defendant's level of reading comprehension or acuity at the game of chess for the Court to infer anything about Davis' true level of cognitive ability. Finally, keeping to an exercise routine or seeking medical care within a precisely managed, structured jail setting, in which an officer reminds inmates to sign up for the gym list, or suggests they see the nurse when they are sick or injured, says nothing about the inmate's ability to take responsibility for his own health and safety while in the general community.

Davis, 711 F.Supp.2d. at 495.

H. Verbal Behavior

682. The AAIDD User's Guide explicitly cautions use of verbal behavior in an intellectual disability assessment. See AAIDD User's Guide at 20 ("Do not use past criminal behavior or verbal behavior to infer level of adaptive behavior.") (emphasis added).

683. The District Court in United States v. Lewis, Docket No. 08 Cr. 404, 2010 WL 5418901, *26 (N.D.Ohio Dec. 23, 2010), rejected the Government expert's determination of a lack of ID "based on Defendant's verbal behavior in jailhouse telephone recordings, a videotaped interrogation, and communications between Defendant and himself." The court went on to cite

the clinical standard in the AAIDD: "[t]he AAIDD User's Guide explicitly cautions use of verbal behavior in an intellectual disability assessment. The Guide further notes that individuals with mild mental retardation possess 'subtle limitations that are frequently difficult to detect.'" Id. (citing AAIDD User's Guide at 16).

684. The court agreed with the conclusions in United States v. Davis, 611 F.Supp.2d at 495, that "determined recordings of speech are largely 'irrelevant' because these recordings may not reflect Defendant's actual abilities. Finally, these recordings do not undermine or refute the explicit historical record that shows Defendant's difficulties in communicating. Dr. Greenspan testified that most individuals with mild mental retardation 'can carry on a conversation that's grammatically or syntactically correct, but are limited in 'their ability to understand complex social and linguistic situations.' " Lewis, 2010 WL 5418901 at *26.

I. Government Experts

685. The Government's experts' opinions amounted to the the same "subjective" and unsubstantiated opinions that the Supreme Court found violated the medical and clinical standards in Moore.

686. The Supreme Court, in Moore v. Texas, rejected arguments similar to those made by the Government in this case about "subjective medical and clinical standards": "Skeptical of what it viewed as 'exceedingly subjective' medical and clinical standards, the CCA in Briseno advanced lay perceptions of intellectual disability." Moore, 137 S.Ct. at 1051.

687, Noting that "the medical profession has endeavored to counter lay stereotypes of the intellectually disabled." Id. at 1051 (citing AAIDD-11 User's Guide 25-27; Brief for AAIDD et al. as Amici Curiae 9-14, and nn. 11-15), the Supreme Court noted that "those stereotypes, much more than medical and clinical appraisals, should spark skepticism." Id. at 1052.

J. Government Daubert Motion

688. The Government moved to exclude testimony regarding Dr. Greenspan's use of a structured interview that he created for his own analytic use and that he refers to as the "Common Sense Questionnaire" ("CSQ"), or, in the alternative, for a Daubert hearing. See Government's Motion to Exclude Testimony Regarding the "Common Sense Questionnaire" from the Atkins Hearing, or, in the Alternative, for a Daubert Hearing, dated, May 1, 2017 (Doc. No. 328**)** (hereinafter cited as, "Gov't Daubert Mot."); see also Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993).

689. Dr. Greenspan relied upon the CSQ to assist in his evaluation of Mr. Roland's adaptive functioning, and as a complement to the ABDS test that he administered on raters as well as multiple qualitative sources of information. See Dr. Greenspan Declaration, dated May 10, 2017, at 12. ("To the extent that the CSQ, in combination with other forms of qualitative / descriptive information provides information about social and practical judgment, its relevance is highly obvious. One important form of reliability is known as "consensual validity" and that has to do with the degree to which information obtained by one method jibes with information gathered through other methods. As demonstrated in my Atkins report on Mr. Roland, I believe there is such consensual agreement between information from the CSQ with information from several other methods.")

690. The Third Circuit has outlined eight factors to considering in relation to Daubert motions challenging the reliability of a given test or field of expertise. See United States v. Mitchell, 365 F.3d 215, 235 (3d Cir. 2004). The Government relied upon those factors to challenge Dr. Greenspan's Common-Sense Questionnaire.

691. The defense does not dispute that if Dr. Greenspan had relied upon, or if the defense had offered into evidence, the CSQ *as a qualitative test*, then the Mitchell factors would apply.

692. However, the defense did not offer the CSQ in than manner and as such this Court need not evaluate whether the CSQ satisfies the approach outlined in Mitchell.

693. Instead, the defense relied upon the CSQ as a *structured interview*, not a test, and as such the Mitchell factors do not apply.

772. Adaptive behavior assessments can include more than just standardized assessment tools. See DSM-5 at 37 ("Adaptive functioning is assessed in using *both* clinical evaluation and individualized, culturally appropriate, psychometrically sound measures. Standardized measures are used with knowledgement informations (e.g., parent or other family member, teach, counselor, care provide) and the individual to the extent possible. *Additional sources of information include educational, developmental, medical and mental health evaluations.* Scores from standardized measures and interview sources must be interpreted using clinical judgment.") (emphasis added), see also Response to Government's Daubert Challenge to the Common Sense Questionnaire, dated 5/10/2017 (hereinafter cited as, "Def. Resp. to Gov't Daubert Mot."), at 9, citing, J. Gregory Olley, Adaptive Behavior Instruments, in THE DEATH PENALTY AND INTELLECTUAL DISABILITY 187, 198 (Edward A. Polloway ed., 2015) ("In addition to scores obtained from AB scales, the expert will integrate other information.… Multiple sources of adaptive behavior information must be considered.").

694. "Dr. Greenspan notes that in his declaration, he 'described the CSQ as a qualitative/ descriptive method. Mr. Roland's answers to the CSQ questions do not change or alter the rich trove of other qualitative/ descriptive data I received from the several interviews I

conducted with percipient witnesses, and also with the quantitative data I collected from a validated and normed third-party rating instrument: the Adaptive Behavior Diagnostic Scale (ABDS).' " Def. Resp. to Gov't Daubert Mot. at 9, quoting, Greenspan Daubert Declaration, at 5. Cf. Brumfield v. Cain, 808 F.3d 1041, 1046 (5th Cir. 2015) (refusing to second guess the district court, who held that Greenspan "is one of the foremost [intellectual disability] experts in the country."); United States v. Lewis, 2010 WL 5418901, at *2 (N.D. Ohio Dec. 23, 2010) (relying on Dr. Greenspan's opinions after finding that he was a "preeminent scholar on intellectual disability"); United States v. Hardy, 762 F.Supp.2d 849, 858 (E.D. La. 2010) (citing Greenspan's writings on intellectual disability as authoritative); United States v. Davis, 611 F.Supp.2d 472, 486 (D. Md. 2009) (same).

695. A recent study of forensic assessment practices among clinical neuropsychologists evinces the fact that the use of a structured interview to analyze an individual's activities of daily living is common professional practice in the field. See LaDuke, Barr, Brodale & Rabin, *Toward generally accepted forensic assessment practices among clinical neuropsychologists: a survey of professional practice and common test use*, The Clinical Neuropsychologist (2017) (hereinafter cited as, "LaDuke article") (Def. Ex. 98), at 14,Table 13 (indicating that a structured interview ranked second among boarded forensic participants for that purpose, ahead of the Vineland Adaptive Behavior Scales test, which ranked third).[7]

696. Since the defense did not rely upon Dr. Greenspan's CSQ as a test, the Government's Daubert motion should be rejected and Dr. Greenspan's Common-Sense

[7] This study was published on July 4, 2017, after Mr. Roland's hearing was complete. The data was "drawn from a broader survey of neuropsychological assessment practices conducted in 2011." LaDuke article at 2, citing, Rabin et al., 2016 (a study of doctorate-level psychologists in the United States and Canada). As such, the study does not include the ABDS test that was employed by Dr. Greenspan, since the ABDS test was created after the study occurred. Ranking first for use in analyzing activities of daily living was the ABAS (2d ed.). See LaDuke article at 14, Table 13.

Questionnaire should be considered by this Court in the manner in which the defense offered it: as the results of a structured interview, not a test.

K. Defense Daubert/Rule 702 Motion

697. Separately, the defendant moved to preclude, not consider, or give no weight to the testimony of Dr. Morgan and Dr. Marcopulos pursuant to, inter alia, Daubert v. Merrell Dow Pharmaceuticals, supra, 509 U.S. 579 (1993), Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999), and Rule 702 of the Federal Rules of Evidence. See, generally, Memorandum of Law in Support of Motion to Exclude Testimony of Dr. Joel E. Morgan and Dr. Bernice A. Marcopulos, or, in the Alternative, Request for Daubert Hearing, dated, May 26, 2017 (Doc. No. 356) (hereinafter cited as, "Def. Daubert/Rule 702 Mot."),

698. Although the defendant's motion cites Daubert and Kumho Tire, it primarily relies upon Rule 702(d) ("A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise *if ... the expert has reliably applied the principles and methods to the facts of the case.*") (emphasis added). See, generally, Def. Daubert/Rule 702 Mot.

699. The defense made this distinction because the defense does not challenge the *tests* employed by the Government's experts, rather the defense challenges the *methods* employed by the Government's experts in analyzing those tests. See, generally, id.

670. As such, the Mitchell factors once again need not be addressed. See Def. Daubert/Rule 702 Mot. at 8 n.2.

671. In death penalty cases, these Constitutional provisions "plac[e] special constraints on the procedures used to convict an accused of a capital offense and sentence him to death" and "requires a 'greater degree of reliability' when it is imposed." Murray v. Giarratano, 492 U.S. 1,

8-9 (1989) (internal citations omitted); see also Monge v. California, 524 U.S. 721, 732 (1998) (observing that there is an "acute need for reliability in capital sentencing proceedings"); United States v. Green, 405 F.Supp.2d 104, 109 (D.Mass. 2005) ("While I recognize that the Daubert-Kumho standard does not require the illusory perfection of a television show (CSI, this wasn't), when liberty hangs in the balance – and, in the case of the defendants facing the death penalty, life itself – the standards should be higher than were met in this case....").

672. Under Daubert and Rule 702 of the Federal Rules of Evidence, expert testimony is admissible only if: "(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case" (emphasis added).

673. Rule 702 "goes further than Kumho to 'provide ... some general standards that the trial court must use to assess the reliability and helpfulness of proffered expert testimony.' " Rudd v. General Motors Corp., 127 F.Supp.2d 1330, 1336 (M.D.Ala. 2001) (emphasis in original and citation omitted); see also United States v. Horn, 5 F.Supp.2d 530, 554 (D.Md. 2002) ("Following the Kumho Tire decision and the December 2000 changes to Rule 702, a detailed analysis of the factual sufficiency and reliability of the methodology underlying expert testimony is required for all scientific, technical or specialized evidence, not just 'novel scientific' evidence.") (emphasis added).

674. Evidence based on psychology and psychological testing is "scientific" within the meaning of Rule 702 and thus subject to Daubert's "gatekeeping" command, see Walker v. Gordon, 46 Fed.Appx. 691, 694 (3d Cir. 2002), citing, Daubert, 509 U.S. at 592, Kumho, 526

U.S. at 147; as is testing aimed at determining malingering in particular, see United States v. Battle, 264 F.Supp.2d 1088, 1176 (N.D.Ga. 2003).

675. "In accordance with Daubert, trial courts are required to apply a reliability analysis to an expert's opinion; that opinion is 'reliable' if it is based on the 'methods and procedures of science' rather than on 'subjective belief or unsupported speculation.' " Walker, 46 Fed.Appx. at 694, quoting, In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 742 (3d Cir. 1994) (in turn quoting Daubert, 509 U.S. at 590).

676. "The advisory committee notes for Rule 702, as amended effective December 1, 2000, comment that the amended rule was formulated in part to affirm Kumho's holding that the trial judge's gatekeeper function applies to all expert testimony." Rudd, 127 F.Supp.2d at 1336.

677. As stated in the Advisory Committee Notes:

> Nothing in this amendment is intended to suggest that experience alone—or experience in conjunction with other knowledge, skill, training or education—may not provide a sufficient foundation for expert testimony.... If the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts. The trial court's gatekeeping function requires more than simply taking the expert's word for it.

Advisory Committee Notes, 2000 Amendments, Fed.R.Evid. 702 (emphasis added and internal citations and quotations omitted).

678. As explained in Rudd:

> While the inquiry into "reliable principles and methods" has been a familiar feature of admissibility analysis under Daubert, the new Rule 702 appears to require a trial judge to make an evaluation that delves more into the facts than was recommended in Daubert, including as the rule does an inquiry into the sufficiency of the testimony's basis ("the testimony is based upon sufficient facts or data") and an inquiry into the application of a methodology to the facts ("the witness has applied the principles and methods reliably

> to the facts of the case"). See Daubert, supra; Fed.R.Evid. 702; Richard T. Stilwell, *Kumho Tire: The Battle of the Experts Continues*, 19 Rev. Litig. 193, 210-213 (Spring 2000). Neither of these two latter questions that are now mandatory under the new rule—the inquiries into the sufficiency of the testimony's basis and the reliability of the methodology's application—were expressly part of the formal admissibility analysis under Daubert.

Rudd, 127 F.Supp.2d at 1336-37 (footnote omitted); see also General Electric Co. v. Joiner, 522 U.S. 136, 146 (1997) (recognizing that Daubert's distinction between factual conclusions and methodology might be too sharply-drawn and concluding that courts "may conclude that there is simply too great an analytical gap between the data and the opinion proffered"); Advisory Committee Notes, 2000 Amendments, Fed.R.Evid. 702 (discussing Joiner and stating that the revised version of Rule 702 incorporates a conscious rejection – and thus expansion – of Daubert's sharply drawn conclusions-versus-methodology distinction); Restivo v. Hessemann, 846 F.3d 547, 577 (2d Cir. 2017) ("trial judge should exclude expert testimony if it is speculative or conjectural or based on assumptions that are so unrealistic and contradictory as to suggest bad faith or to be in essence an apples and oranges comparison"), quoting, Zerega Ave. Realty Corp. v. Hornbeck Offshore Transp., LLC, 571 F.3d 206, 214 (2d Cir. 2009).

679. "A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise *if ... the expert has reliably applied the principles and methods to the facts of the case*." Fed.R.Evid. 702(d) (emphasis added).

680. Dr. Morgan and Dr. Marcopulos's methodology run afoul of the "prevailing clinical standards." First and foremost, both state that they disagree with the AAIDD even though the AAIDD-11 and the AAIDD User's Guide are relied upon by the Supreme Court, in conjunction with the DSM-5, to define the clinical standard. See Moore, 137 S.Ct. at 1041 ("The

court consulted current medical diagnostic standards—the 11th edition of the American Association on Intellectual and Developmental Disabilities clinical manual (AAIDD–11) and the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders published by the American Psychiatric Association."); Moore, 137 S.Ct. at 1053 (describing the "current manuals" of the DSM and AAIDD as offering "the best available description of how mental disorders are expressed and can be recognized by trained clinicians"), quoting, DSM-5 at xli, and citing, Hall, 134 S.Ct. at 1990, 1991, 1993, 1993-96 (relying upon the DSM-5 and AAIDD-11 as the current clinical standards that must be followed); see also Atkins, 536 U.S. at 308 n.3, 317 n.22 (relying upon then-current manuals, including the then current-version of the AAIDD manuals [then AAMR] to define the clinical standards). That by itself is sufficient to discount the findings of Dr. Morgan and Dr. Marcopulos. Indeed, the same flaw is true of Dr. Denney's testimony as well.

681. Dr. Morgan also improperly relies upon stereotypes to claim Mr. Roland's behavior does not comport with a diagnosis of ID. See Report of Dr. Morgan, dated, April 28, 2017, at 14-15 (paragraph starting "Numerous examples" through paragraph starting "Mr. Roland's emails"); see also Rebuttal Declaration of Dr. McGrew, dated, May 23, 2017, at 34 (citations omitted); see also Rebuttal Declaration of Dr. Olley at 4.

682. During Dr. Morgan's testimony as well as his reports, he provided no supporting research citations to support his decision to ignore the aspects of the AAIDD that he disagreed with. Indeed, Dr. Marcopulos and Dr. Denney's testimony was flawed in that same way as well. See Morgan direct, 6/16/17, Tr. 53-55; Morgan cross, 6/16/17, Tr. 145, 160-161, 168, 170; Morgan cross, 6/19/17, 7-8, 53. See Marcopulos cross, 6/20/17, Tr. 182-185. Also see Denney direct, 6/22/17, 67-70.

683. Dr. Morgan, Dr. Marcopulos, and Dr. Denney's conclusion that Mr. Roland should be found to have been malingering on all five IQ tests that were administered to him throughout his life, simply because they did not believe that Mr. Roland was providing sufficient effort when Drs. Hunter or Morgan evaluated him, ignores established psychometrics of IQ testing, accepted practice of accepting the results of effort testing, and ignores consistent prior history with two prior indications of intellectual disability, where Mr. Roland had no secondary motive or secondary gain that would have caused him to feign an intellectual disability: when he was evaluated in 1999 by the Social Security Administration or in 2002 by the Juvenile Justice Commission.

684. As previously discussed, there is no legal support for the Government's position that a divergent matrix reasoning subtest score on one IQ test may be relied upon to invalidate the findings of any prior IQ tests. See, supra.

685. For all of these reasons and others, Mr. Roland's Daubert/Rule 702 motion should be granted and the portions of the testimony of Dr. Morgan and Dr. Marcopulos that diverge from the clinical standard – as defined by the DSM-5, the AAIDD-11, and the AAIDD User's Guide – should not be considered. See also Doc. 356 (for defendant's complete Daubert/Rule 702 argument against Dr. Morgan and Dr. Marcopulos, which, we submit, applies with equal force to Dr. Denney in light of Dr. Denney's testimony).

686. For the same reasons, those portions of Dr. Denney's testimony that diverge from the clinical standard should also not be considered.

V. Conclusion

687. Based upon all of the reasons discussed herein, the record establishes that Mr. Roland in intellectually disabled and therefore ineligible for the death penalty as a potential sentence in this case.

688. The record establishes that Mr. Roland has deficits in intellectual functioning, thus satisfying Criterion 1 of the inquiry.

699. The record establishes that Mr. Roland has deficits in at least one domain of adaptive functioning, thus satisfying Criterion 2 of the inquiry.

670. Indeed, evidence exists that Mr. Roland has deficits in all three domains – conceptual, social, and practical – even though evidence of only one domain is all that is necessary to establish that Mr. Roland satisfies Criterion 2.

671. The record also establishes that the onset of Mr. Roland's intellectual disability occurred during his developmental period, i.e., prior to age 18, thus satisfying Criterion 3 of the inquiry.

672. Mr. Roland has met his burden by a preponderance of the evidence that he is intellectually disabled.

673. Mr. Roland is therefore ineligible for the death penalty in light of Atkins, Hall, Moore, their progeny, and the Eighth Amendment to the United States Constitution.

674. The Government has 30 days to inform this Court whether it intends to seek an interlocutory appeal of this decision and must file a Notice of Appeal within that time frame if the Government decides to do so. See Fed.R.App.P. 4(b)(1)(B)(i).

675. If the Government elects to seek an interlocutory appeal, Mr. Roland's trial will be stayed until the appeal is final.

676. If the Government elects not to seek an interlocutory appeal, then Mr. Roland's trial will begin on January 29, 2018, and the Government will be barred from seeking the death penalty.

Dated: July 20, 2017

Respectfully submitted,

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